

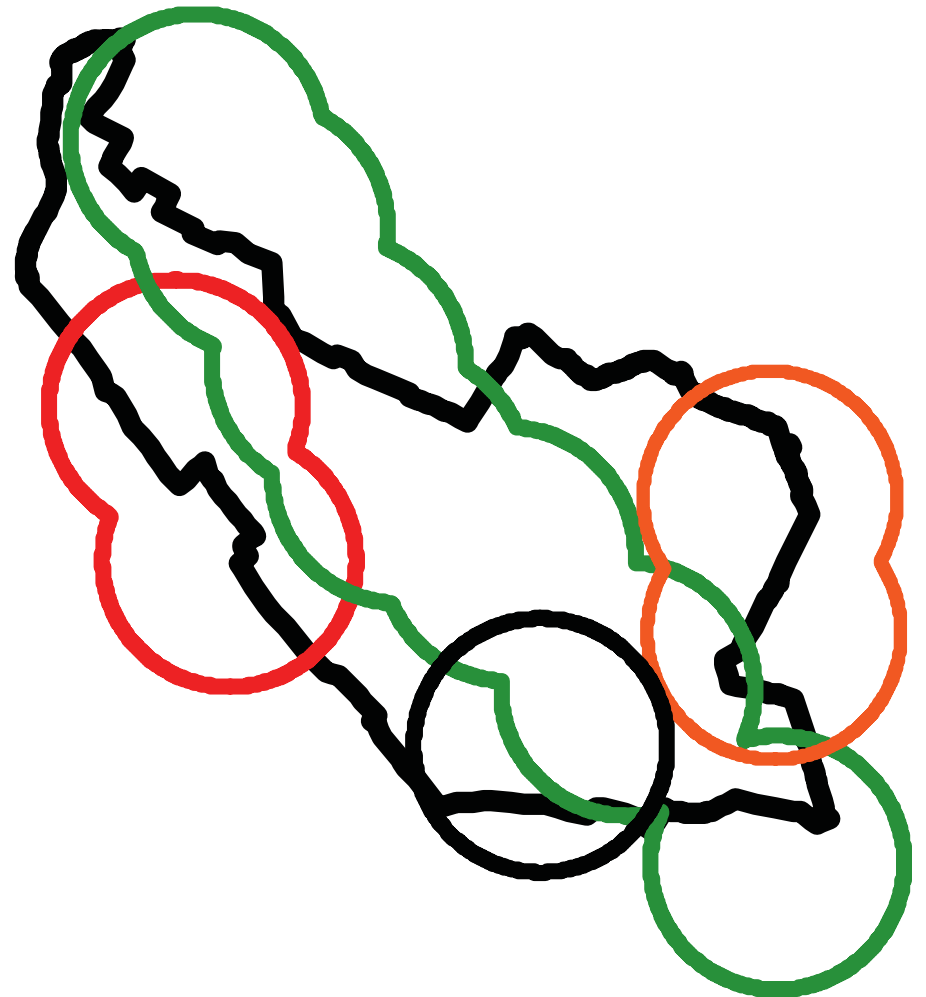
Somerville Equitable Transit-Oriented Development Strategy

Prepared for: Somerville Community Corporation

Prepared by:



May 2008



Report Partners

Founded in 1969, **Somerville Community Corporation (SCC)** is a membership organization with a mission to develop and preserve affordable housing, offer services and programs, and build a collective voice through community organizing in order to realize a stable, diverse, and affordable community. Specifically, SCC is committed to minimizing the displacement of low and moderate income families and individuals while engaging in community development efforts that improve quality of life for Somerville's diverse population.

Reconnecting America is a national non-profit organization that provides an impartial, fact-based perspective on development-oriented transit and transit-oriented development. Our main program is the **Center for Transit-Oriented Development (CTOD)**. CTOD is the only national, non-profit effort dedicated to providing best practices, research and tools to support market-based transit-oriented development. Our mission is to help spur a new wave of development that helps provide real transportation options, improves housing affordability and choice, revitalizes downtowns and urban and suburban neighborhoods, and creates lasting value and high-quality urbanism. CTOD is a collaboration among Reconnecting America and its core partners, Strategic Economics, a real estate economics firm, and the Center for Neighborhood Technology, a nonprofit GIS and research center. Our headquarters are in Oakland, California, and we have offices in Washington D.C. and Los Angeles.

Funding for this report was generously provided by the **Surdna Foundation**. The foundation's Community Revitalization Program works in select U.S. cities to support efforts to create equitable, environmentally sustainable, mixed-income communities that provide residents with choice and opportunity. Communities of choice are economically and culturally diverse, and provide a range of housing choices; promote development that is walkable, environmentally sustainable and cost-effective; support green building and energy efficiency in policy and practice; connect development to jobs and information through transit and wireless networks; and build equity into their systems, to ensure that all residents can benefit from a city's revitalization.

Table of Contents

Executive Summary	1
Setting The Context	3
<i>Context for Transit-Oriented Development</i>	<i>3</i>
<i>The Importance of Equity</i>	<i>4</i>
<i>Data and Methodology</i>	<i>4</i>
<i>TOD Context in Somerville.....</i>	<i>5</i>
Citywide Challenges for Equitable TOD	8
Green Line Extension Equitable TOD Challenges	15
Equitable TOD Opportunities & Strategies	22
<i>Equitable Development Strategies</i>	<i>22</i>
<i>Equitable Development Opportunities.....</i>	<i>26</i>
Next Steps in Promoting Equitable TOD in Somerville	30
Appendix: Full Data Tables	31

List of Maps, Charts, and Tables

<i>Map 1: Existing Land Use and Transit Station Areas</i>	<i>2</i>	<i>Chart 8: Underutilized Land</i>	<i>18</i>
<i>Chart 1: Typical Household Costs.....</i>	<i>3</i>	<i>Map 8: Green Line Extension Land Use.....</i>	<i>19</i>
<i>Chart 2: Travel Patterns in 17 Regions</i>	<i>3</i>	<i>Map 9: Residential Land Cost Per Square Foot.....</i>	<i>20</i>
<i>Map 2: Somerville Transit Geographies.....</i>	<i>6</i>	<i>Chart 9: Resident Owner/Renter Composition.....</i>	<i>21</i>
<i>Chart 3. Current Journey to Work in Somerville</i>	<i>7</i>	<i>Table 5: Resident/Owner Composition in the Green Line Extension</i>	<i>21</i>
<i>Table 1: Growth in Incomes, 1990-2000.....</i>	<i>8</i>	<i>Table 6: Equitable Development Opportunities and Strategies</i>	<i>28</i>
<i>Chart 4: Income Levels in Somerville Transit Corridors</i>	<i>8</i>	<i>Map 10: Somerville Equitable Development Opportunity Areas.....</i>	<i>29</i>
<i>Chart 5: Land Value Assessments in Somerville Transit Corridors.....</i>	<i>9</i>		
<i>Table 2: Residential Types by Station Area.....</i>	<i>9</i>		
<i>Map 3: Underutilized Properties.....</i>	<i>10</i>		
<i>Map 4: 2-3 Unit Housing.....</i>	<i>11</i>		
<i>Chart 6: Small Businesses in the Green Line Extension</i>	<i>13</i>		
<i>Map 5: Assisted Housing Units</i>	<i>14</i>		
<i>Chart 7: Percentage of Nonwhite Residents on Green Line.....</i>	<i>15</i>		
<i>Table 3: Underutilized Land by Station Area</i>	<i>15</i>		
<i>Table 4: Housing Types by Station Area.....</i>	<i>15</i>		
<i>Map 6: Non-White Population by Census Tract</i>	<i>16</i>		
<i>Map 7. Underutilized Land in Specific Station Areas....</i>	<i>17</i>		

Executive Summary

Planned transit investments have the potential to transform Somerville in the next few years, providing improved transportation connections that reduce household transportation costs, spurring development that provides neighborhood-serving retail options, open space, and community services, and facilitating commercial development that reinforces the City's tax base. However, these transformations also have the potential to impact low- and moderate-income residents of the city by raising housing costs, potentially displacing the very residents who have invested in the community and stand to gain the most from improved transit access.

Somerville Community Corporation (SCC), through the support of the Surdna Foundation, has engaged Reconnecting America's Center for Transit-Oriented Development to prepare this report on the challenges and opportunities for equitable transit-oriented development, as well as some of the strategies that have been deployed successfully around transit projects elsewhere in the country. SCC is a membership organization with a mission to develop and preserve affordable housing, offer services and programs, and build a collective voice through community organizing in order to realize a stable, diverse, and affordable community.

Key Findings

Our research has found the need for strong, proactive steps to realize the potential benefits of both the extension of the Green Line from Lechmere Station and the infill of an Assembly Square Station on the Orange Line. In conducting this research, we have also looked at the conditions around the current transit stations: Porter Square and Davis Square on the Red Line and Sullivan Square on the Orange Line, to see what lessons these stations can provide about the future. Our key findings include the following:

- The equitable transit-oriented development opportunities will be different in different parts of the city, and there cannot be a one-size-fits-all solution to the challenges;
- East Somerville and the area around Union Square are the parts of the city most vulnerable to displacement of existing populations due to rising costs, yet these are also some of the areas with the greatest possibility to leverage transit investments for new mixed-use, mixed-income development;

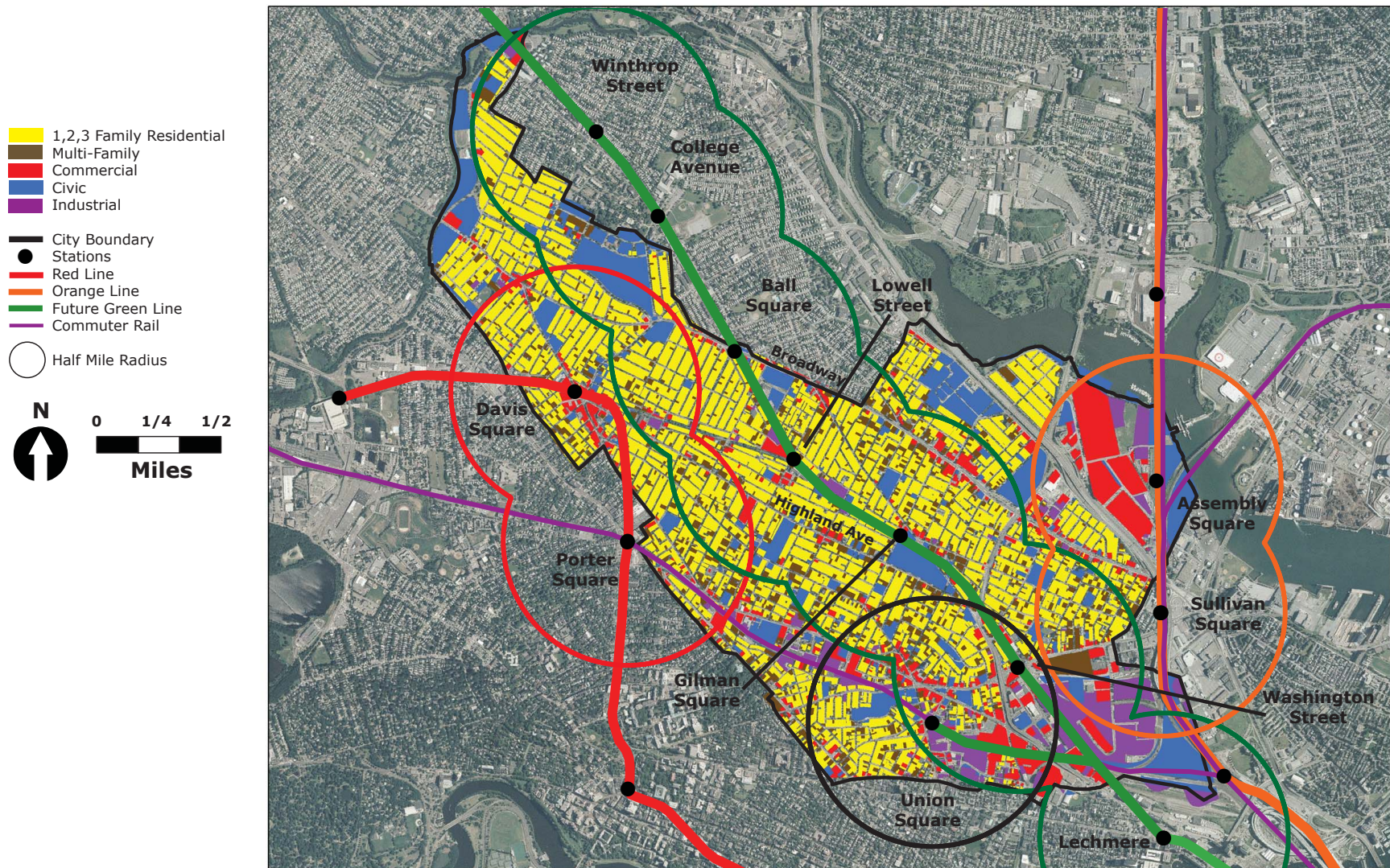
- Preservation of existing affordability will be at least as important as creating new affordability through development, but both are essential to creating mixed-income communities;
- Small and local businesses have the potential to be impacted by rising rents and land prices in the absence of business development and support; and
- In addition to development strategies, public investments improving access to transit through street design and safety enhancements will help current and future residents take full advantage of transit access.

Recommendations and Next Steps

Through our study of the conditions in Somerville and our understanding of these same issues in other parts of the country, we can provide the following recommendations, explained more fully later in this report:

- Existing and future housing subsidies and incentive programs should be targeted to areas with good transit access and policies should be reformed to reinforce the importance of transit access for equitable development;
- There are five broad types of opportunity areas in the city that form a framework for considering equitable transit-oriented development, and each of these five types will have distinct strategies that will often cut across the boundaries of individual station areas or neighborhoods;
- There are opportunities to leverage existing public resources, including land and funding, to support equitable development;
- Each station in the city has the potential to create a hub of community activity and services that meet residents' daily needs, but each of these station opportunities will be slightly different, and should receive tailored transportation and land use planning attention from the City; and
- To make these community hubs function for the neighborhoods they serve, a community planning process should be initiated in the immediate future and an open effort should be made to involve those who are not usually involved in the decision-making process who will be most impacted by new transit.

Map 1: Existing Land Use and Transit Station Areas



Setting The Context

Context for Transit-Oriented Development

Transit-oriented development is an approach to urban development that takes advantage of the unique opportunities provided by access to high-quality public transportation. Transit-oriented development contributes to attractive, walkable, sustainable communities that allow residents to have housing and transportation choices and an affordable lifestyle. Transit-oriented development should:

- Provide a rich mix of housing, shopping, and transportation choices;
- Increase “location efficiency” so people can walk, bike, and take transit;
- Boost transit ridership and minimize traffic;
- Generate revenue for the public sectors and provide value for both new and existing residents; and
- Create a sense of place and community value.

The benefits of transit-oriented development include:

- Reduced transportation costs for households: households living near transit spend an average of 10% less of their incomes on transportation (see Chart 1);
- Public health improvements through increased walking and bicycling and reduced vehicle emissions: households living within 1/2-mile of transit use transit, walk, and bike three to five times as often as other residents in the same region (see Chart 2);
- Increased private investment;
- Increased access to the regional job market; and
- Economic benefits from increased concentration of activity in commercial and transit nodes.

Chart 1: Typical Household Costs

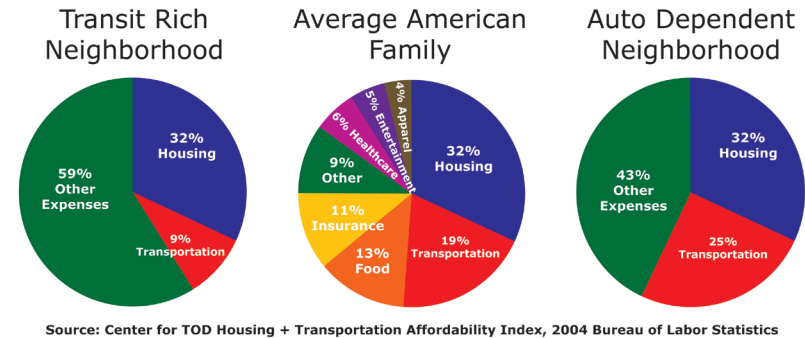
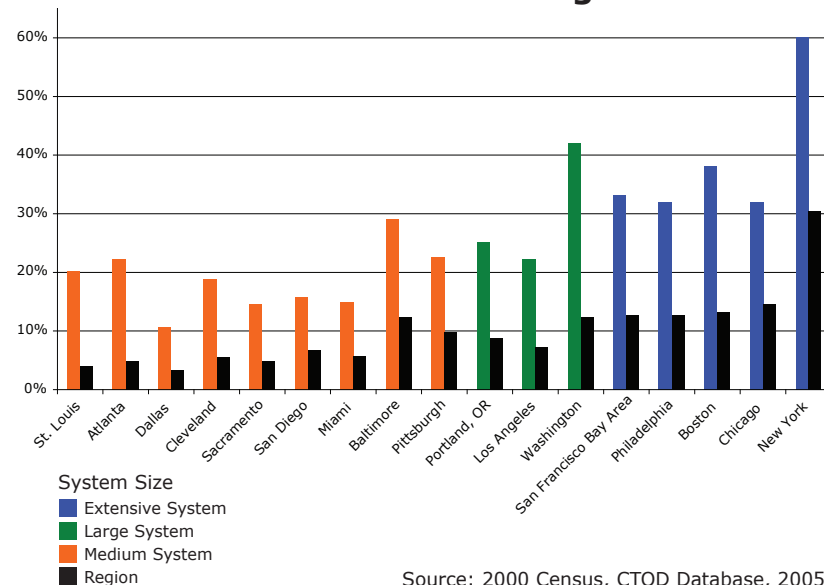


Chart 2: Travel Patterns in 17 Regions

2000 Transit, Biking, and Walking to Work Transit Zones Vs. Region



The Importance of Equity

Transit investments currently in the planning stages have the potential to radically shift development conditions in Somerville. The extension of the Green Line from Lechmere Station to Union Square and along the existing Lowell Commuter Rail corridor through Somerville to Medford and the addition of an Orange Line station at Assembly Square will all improve access to Downtown Boston and other employment centers in the region, increasing the desirability of residential property in Somerville.

The planning process for transportation investments and housing programs has often excluded important segments of the population, including low- and moderate-income households, non-white populations, and recent immigrants. However, these are the very populations that stand to gain the most from the improved access to jobs and reduced transportation costs provided by high quality transit access. An equitable approach to transit-oriented development seeks to share broadly the benefits of this major public investment in transit access, ensuring that both existing and future residents can benefit through expanded affordable and accessible housing options, opportunities for local business development, affordable access to regional employment opportunities, and enhancing anchors for community life.

Steps to ensure equitable transit-oriented development must be taken quickly, even if the transit improvements are still some ways off, because the real estate and development markets begin to respond early to planned transit investments, and once the investments are made, it is often too late to capture the full range of equitable development benefits. Transit-oriented development fails to realize its full potential without a diversity of housing choices that are affordable to households at a range of incomes, as well as the small and local business opportunities that can help build wealth in the community.

A recent study found that Boston area households earning \$20,000-50,000 spent over \$10,000 per year on transportation costs.¹ When

1 Center for Housing Policy. *A Heavy Load: The Combined Housing Transportation Burdens of Working Families*. October 2006. Available at: <http://www.nhc.org/index/heavyload>

these households are able to live near transit, their transportation costs can decrease substantially through reduced car ownership and use. Increasingly, cities and states across the US are prioritizing lower-income affordable housing in transit districts to achieve these ancillary benefits of transit access. However, this effort to make transit-oriented development available for all is not a simple task, and policies and programs must be tailored to overcome barriers to equitable TOD and reinforce the existing affordability that is often present in areas near transit that have been underinvested in the past. While there are some good national case studies, the best solutions are tailored to local needs and opportunities. Reconnecting America's Center for Transit-Oriented Development documented the strategies being used in five regions in a 2007 report.²

This paper looks at some of the conditions in Somerville today and some of the potential approaches to creating equitable TOD as the implementation of transit investments in the city continues.

Data and Methodology

Reconnecting America's Center for Transit-Oriented Development maintains a database of every fixed-guideway transit station in the United States with US Census information at the 1/2-mile radius around the transit station. We have augmented this database with the proposed Green Line Extension alignment and proposed Assembly Square Orange Line Station for the purposes of this project. Because the Green Line Extension station locations remain somewhat flexible, we have used the station locations from Alternative 1C in the 2005 Alternatives Analysis completed for the MBTA by Vanasse Hangen Brustlin, Inc.³

2 Center for Transit-Oriented Development. *Realizing the Potential: Expanding Housing Opportunities Near Transit*. April 2007. Available at: <http://www.reconnectingamerica.org/public/reports>

3 Note: The preliminary station locations announced by the Executive Office of Transportation (EOT) on May 5th, 2008, are roughly consistent with the station locations studied in this report. The slight variations in station locations (at Brickbottom rather than Washington Street, and between College Avenue and Winthrop Street in Medford) do not impact the basic conclusions and analysis in this study.

Our analysis is based on data from the 2000 US Census data and the 2004 Tax Assessors data for the City of Somerville. We must note that the US Census is conducted only every 10 years, and can thus be seen as out of date quickly. However, the US Census is the most comprehensive data set available and gives information and background on the demographics of the city. Augmenting this information with important baseline data with key trends and other data sets helps to provide a picture of the current situation within the city. For example, between 1990 and 2000, foreign-born residents of the city increased seven percent (from 22 percent in 1990 to 29 percent in 2000).⁴

The 2010 US Census, when completed, will give a still more complete understanding of the demographic composition of the city, and should be used to update this analysis as soon as it becomes available (typically one to two years after it is taken).

The City's Tax Assessors data records include assessed values for both land and improvements (built structures, landscaping, and other improvements). These assessed values are often related to the cost of land, but, since land is bought and sold on an open market, land costs can vary substantially based on a range of conditions. The Assessors data provides more of a snapshot that equalizes among a number of variables to consistently understand land prices across the city, rather than any sort of predictive value.

This data has yielded some interesting observations about the challenges and opportunities for the Somerville Community Corporation (SCC) and the City of Somerville in addressing equitable transit-oriented development, both around existing transit stations, and in the planning for the new Green and Orange Line expansions.

4 The US Census can tend to under represent the sectors of the population most important for equitable development considerations, such as overcrowded households, low-income and immigrant residents who may not fill out census surveys.

TOD Context in Somerville

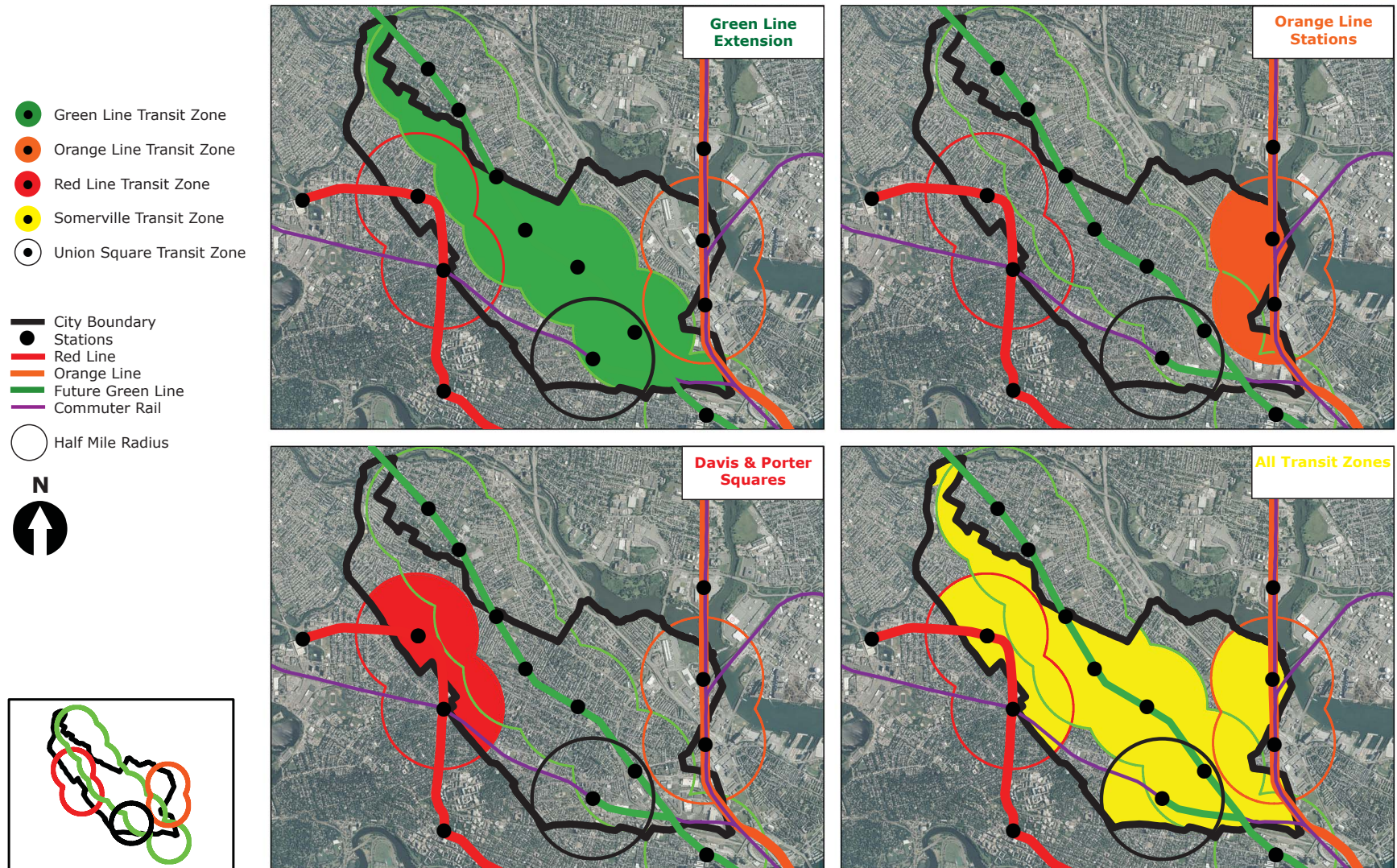
To analyze the data and the impacts of transit, we've broken the city down into smaller subareas using the 1/2-mile radius around existing and planned transit stations. We have broken the city down as follows (see Map 1 for more detail):⁵

- **Red Line Stations** include the portions of the Porter and Davis Square station areas within Somerville
- **Orange Line Stations** include the existing Sullivan Square station area and the planned Assembly Square station
- **Green Line Extension** includes the aggregate of the planned extension from Lechmere Station through Somerville into West Medford. We have also isolated the four eastern Green Line Extension Stations individually—**Washington Street, Gilman Square, Lowell Street, and Ball Square.**
- **Union Square** is the 1/2-mile radius around the planned Union Square spur station off of the main Green Line. Union Square is not included in the Green Line Extension analysis, although there is considerable overlap between the areas accessible to both the Green Line Extension and the Union Square station.

These sub-areas do have some overlap, so we've also aggregated the data at the city level to show the full potential build-out of transit in the city. We've also compared these sub-areas and aggregate area to the full city and to the region as a whole, providing data was available at each scale. Map 2 shows each of these areas.

5 The Center for Transit-Oriented Development utilizes the 1/2-mile radius (roughly equivalent to a 10-minute walk) to analyze transit-oriented development nationwide. This is generally accepted as a baseline area for analysis that then must be assessed within the local context of street network, supportive land uses, and physical barriers, such as freeways or major topography that can reduce the transit accessibility of some areas.

Map 2: Somerville Transit Geographies



Somerville is a Part of Urban Boston

Outside of the urban core, much of the Boston region is auto oriented and suburban, but Somerville reflects its urban location and history (over 90 percent of all housing units in the city were built before WWII, compared to just over 33 percent in the region). Because of this, transit zones in Somerville are more comparable to each other and other inner region locations than they are like the rest of the region. Densities in transit zones across the city are around 30 units per acre and the percentage of renters is high (approximately 70 percent). This, coupled with the low vacancy rate of 2.8% leaves residents vulnerable to displacement when values rise.

In addition, the city is more diverse than the Boston Region, creating a home for a number of different ethnicities and income levels. Median Household Income in the transit zones ranges from \$35,000 to \$55,000 pointing out that this area is anything but homogenous and vulnerable to changes in demographics and income that could displace current residents, particularly from lower-income areas or areas with high immigrant populations.

Key Finding: This suggests that displacement is a real possibility with expanded transit service in Somerville and it is very important that SCC and the City of Somerville are engaged in proactively addressing these issues as they arise.

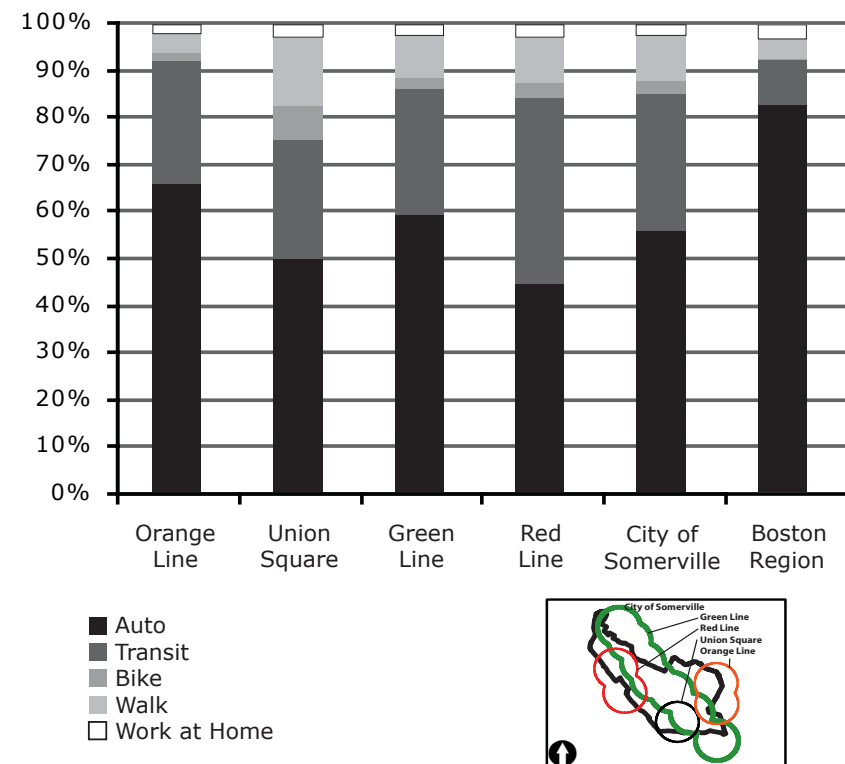
Access Will Be Greatly Improved Due to the Green Line

Central Somerville is currently relatively isolated from transit access to Downtown Boston and other key regional job and education centers such as Harvard and Kendall Squares in Cambridge. The Green Line Extension will greatly improve access to these destinations and within Somerville, which will likely create higher demand for housing in the corridor. Currently residents in the vicinity of the proposed stations along the Green Line Extension are similar in their usage of public transit as a means to get to work, with an average of 27 percent transit usage (including bus and train). The Red Line station areas have much higher transit usage, with 40 percent of residents using transit to commute to

work. Because the Green Line will provide direct access to Government Center and Downtown Boston, it is likely that transit usage in the corridor will go up. However, the Orange Line station areas currently have around 26 percent transit usage. This lower usage may be due to the relatively poor pedestrian and bicycle access to the Sullivan Square station and/or residents having jobs in employment centers not served by transit (the Orange Line issues and opportunities are discussed in more detail below). The chart below shows the journey to work for each of the sub-areas in the city.

Key Finding: By more effectively connecting Central Somerville to the region, demand for housing will grow and housing prices will rise.

Chart 3. Current Journey to Work in Somerville



Citywide Challenges for Equitable TOD

Red Line Stations Have Already Changed

The Davis Square and Porter Square Red Line stations, opened in 1986, show the impact of over 20 years of change. While these areas once reflected the demographics of the city more, they now are showing more connection to the region than the city in terms of income and property values. In the 1990 Census, the tracts that roughly align with the Red Line station areas had median household incomes approximately eight percent higher than the city as a whole.⁶ Between 1990 and 2000, median incomes in the Red Line station areas increased roughly by 60 percent, while median household incomes around the Orange Line stations have remained relatively stable, with incomes approximately 15 percent less than the citywide median in 1990 and 18 percent lower in 2000. Since 1990, the median household income in the City of Somerville has risen faster than the regional average, with a 43 percent increase in Somerville compared to a 30 percent increase in the region as a whole. Despite this faster increase, the median income in the City of Somerville was still about 88 percent of the regional median, while median incomes in the Red Line station areas in 2000 were about 21 percent higher than the city median and six percent higher than the regional median. Chart 4 illustrates the 2000 median incomes and the percentage of households below 50 percent of Area Median Income for each corridor and the Green Line Extension stations.

In addition to incomes, assessed property values and rents around the Red Line have gone up, making them higher than the rest of the city. In 2004 the average cost per residential square foot was \$73 versus \$59 in the City of Somerville as a whole. See Chart 5.

⁶ The Census geographies available for analysis in 1990 are slightly different than those used to create the 1/2-mile buffer in the 2000 Census. These comparisons are not exact and should be used for illustrative purposes only.

There are also few clear development opportunities in this area of the city, so creating new affordable housing on any large scale will require creative strategies such as the reuse of public land.

Key Finding: This suggests that without a proactive approach, increased transit investments will mean more of the city will resemble the current conditions around the Red Line stations. It also suggests that some equitable strategies appropriate for other parts of the city that have not experienced as much change may not be effective in the Red Line station areas.

Chart 4: Income Levels in Somerville Transit Corridors

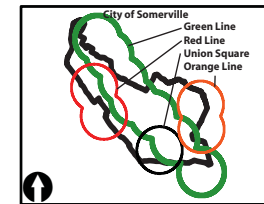
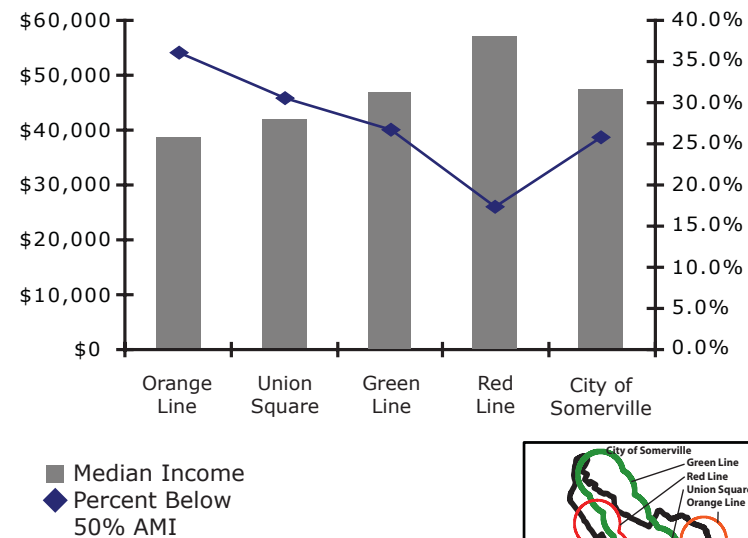
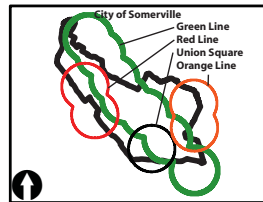
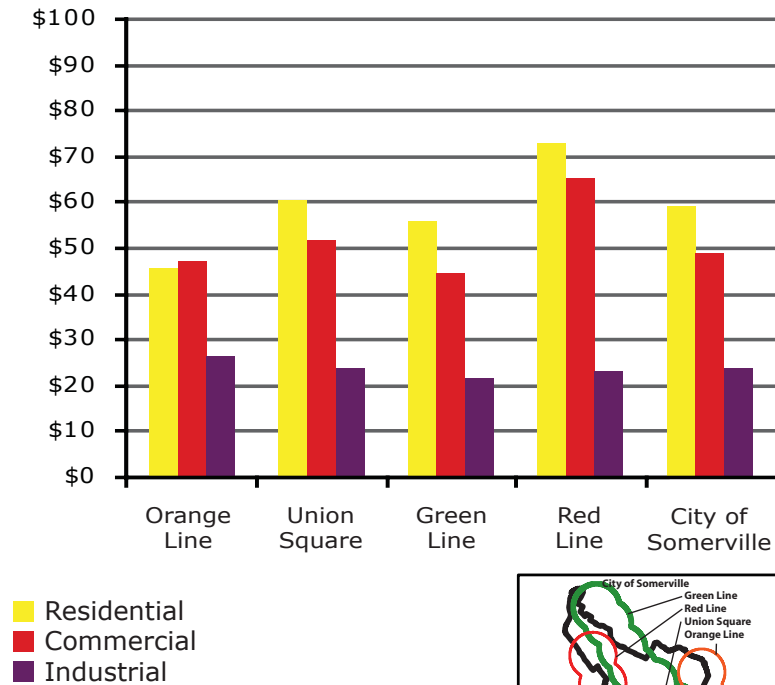


Table 1: Growth in Incomes, 1990-2000

	1990	2000	Increase	Increase Relative to Regional Median
Boston Region	\$ 40,666	\$ 52,792	30%	-
Somerville	\$ 32,455	\$ 46,315	43%	114%
Red Line Stations ³	\$ 34,994	\$ 55,844	60%	172%
Orange Line Stations ³	\$ 27,462	\$ 37,797	38%	85%

Chart 5: Land Value Assessments in Somerville Transit Corridors



Development Opportunities Are Different in Different Parts of the City

In the eastern part of the city, there are some large underutilized commercial and industrial properties where the value of improvements is less than the assessed value of the land. While these properties are often industrial, and may still provide productive uses, these areas also mean there are more substantial opportunities for new mixed-use, mixed-income development in the eastern half of Somerville than in other parts of the city. See Map 3.

Key Finding: This suggests that city resources may be best directed toward opportunities for equitable development and preservation in the eastern half of Somerville while preserving existing affordability where it exists in other parts of the city.

North Eastern Section of City Susceptible to Displacement

There is great potential for gentrification and displacement between the Green and Orange corridors. The area north of the future Green line and west of the Orange Line may be the most susceptible to long-term change due to its lower incomes and land values, and the presence of 2- and 3-family houses (see map 4), which can be quickly converted from rentals to condos. As the Green Line extension is planned and built, this area could see increased displacement pressures. There are also smaller amounts of developable land, so there will be less opportunity to absorb this pressure. Map 6 shows the difference in land costs between the western and eastern parts of the city. A clear line of division between them is Cedar Street, which will be discussed in greater detail below.

Key findings: This suggests that equitable TOD strategies focused on preserving existing market affordability, using land trusts or other tools might be more effective than strategies to create new affordable housing.

Table 2: Residential Types by Station Area

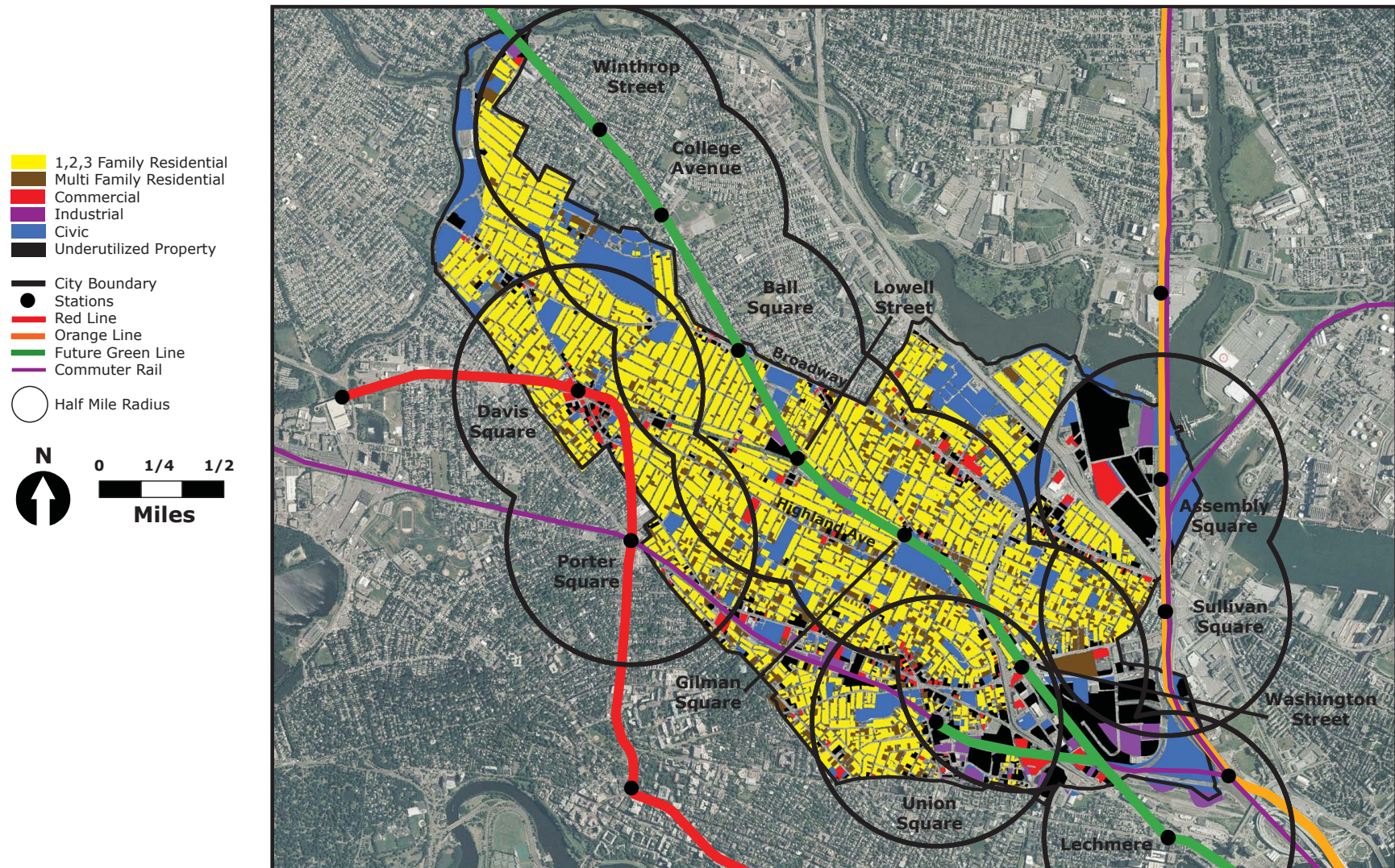
	Green Line Extension	Red Line Stations	Orange Line Stations	Union Square	All Transit Zones	City of Somerville
Total Housing Units (2000)	19,859	7,793	2,480	4,846	27,223	32,477
% of units in 1-family structures	8.1%	7.3%	6.1%	6.4%	7.7%	7.4%
% of units in 2 or 3 family structures	60.6%	69.3%	51.4%	54.7%	61.4%	59.1%
% of units in 4+ family structures	31.3%	23.4%	42.5%	38.9%	30.8%	33.5%

Orange Line Has the Most Transit-Dependent Population, But Uses It the Least

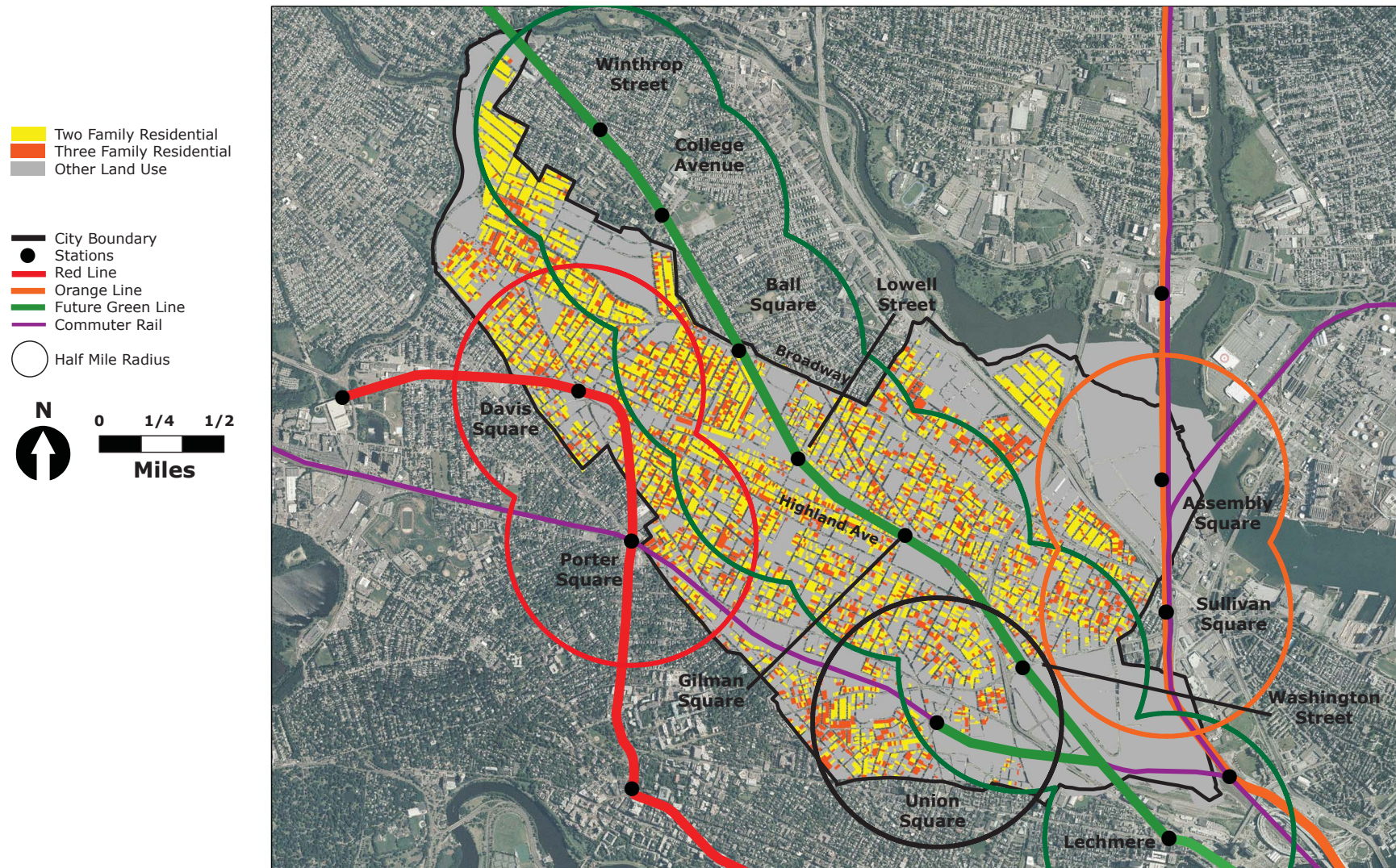
Larger household sizes, lower incomes, and a higher non-white population suggests that this area of the city has some of the most vulnerable populations for displacement. However, the air quality and environmental impacts of the McGrath Highway and I-93, low real estate values, and prevalence of industrial uses may have insulated the neighborhood to displacement pressures so far, even as they have impacted quality of life for current residents.

The Orange Line stations have the most underutilized land currently, and the largest parcels, although most of this land is currently in industrial

Map 3: Underutilized Properties



Map 4: 2-3 Unit Housing



use, and may continue to be productive economically even as the building value is exceeded by the land value.

The Orange Line station areas also have the lowest current transit, bike, and walk commute share of any of the sub-areas, despite the presence of the Sullivan Square T station (See Chart 3). The access issues both within the neighborhood and in connecting to other parts of the city probably limit the attractiveness of transit, walking, and biking, and the access to employment destinations provided by I-93 probably makes driving somewhat more attractive, despite the traffic congestion. Lighting improvements and other access investments would improve transit access in this part of the city. Such improvements should also be made with an understanding that improved transit access may increase gentrification pressures, so should be paired with proactive policies for creating and preserving equitable development opportunities.

A new station at Assembly Square, as well as new mixed-use, mixed-income development surrounding the station also present a good opportunity to better link the neighborhoods on the eastern side of the city with transit. The new Assembly Square Station will also require improved pedestrian access from surrounding neighborhoods in order to effectively connect riders with the station.

Key Finding: This suggests that the Orange Line stations have the potential for long-term equitable TOD as transit service is improved and Assembly Square is upgraded. The Assembly Square station has a big opportunity for new larger scale mixed-use, mixed-income TOD. However, proactive planning and access improvements to streets will be necessary to fully realize the benefits of the transit service.

Small Businesses Should Be Part of Equitable TOD Discussion

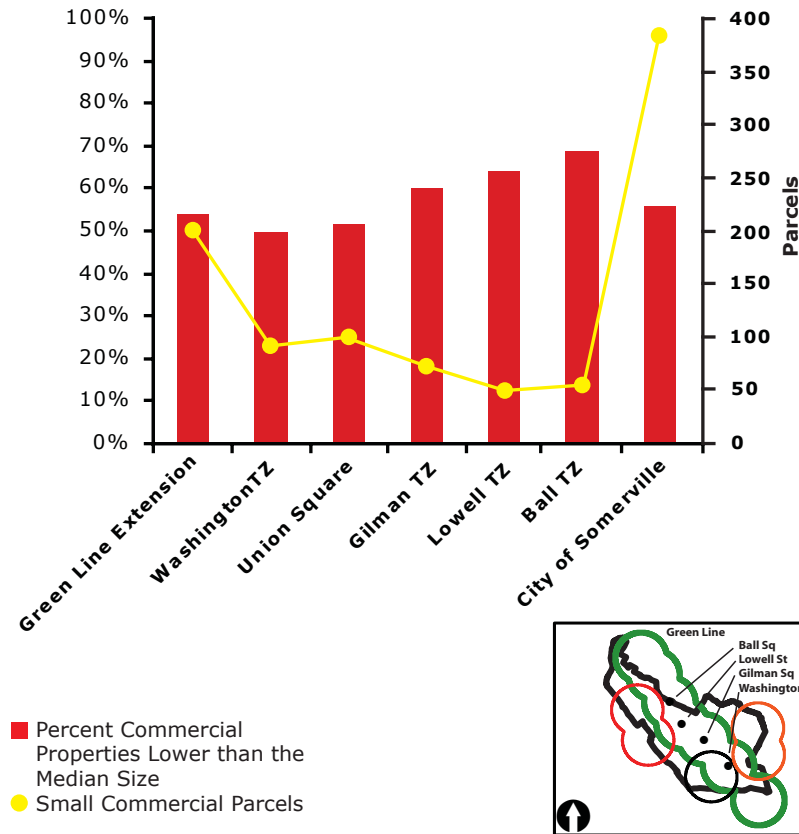
While this study was not able to undertake a detailed analysis of small business issues, the available data does indicate some potential small business issues that will be impacted by increased development. In Union Square, there are over 100 commercial properties smaller than the city

median commercial property size of 0.13 acres (a little over 5,500 square feet). This may be just a subset of the total number of small businesses in the station area, but gives an indication of the scale of the potential issue. Similarly, in much of the Green Line Extension corridor, the share of small commercial properties is significantly higher than the citywide average. See Chart 6.

Small business development and retention will also be an issue in the Red Line and Orange Line station areas. Small businesses can be especially vulnerable to rising rents and property values, but also provide an important source of employment and entrepreneurship opportunities. As transit areas become more desirable, there is often the need to support small businesses with business development training, small improvement loans, façade improvements, and other support mechanisms. Similarly, job training for residents can focus on developing skills that can lead to employment in small businesses to help reinforce the local employment opportunities.

Key Finding: This suggests that equitable TOD strategies should also include small business support and development, as well as more detailed analysis of specific needs and opportunities as part of future studies.

Chart 6: Small Businesses in the Green Line Extension



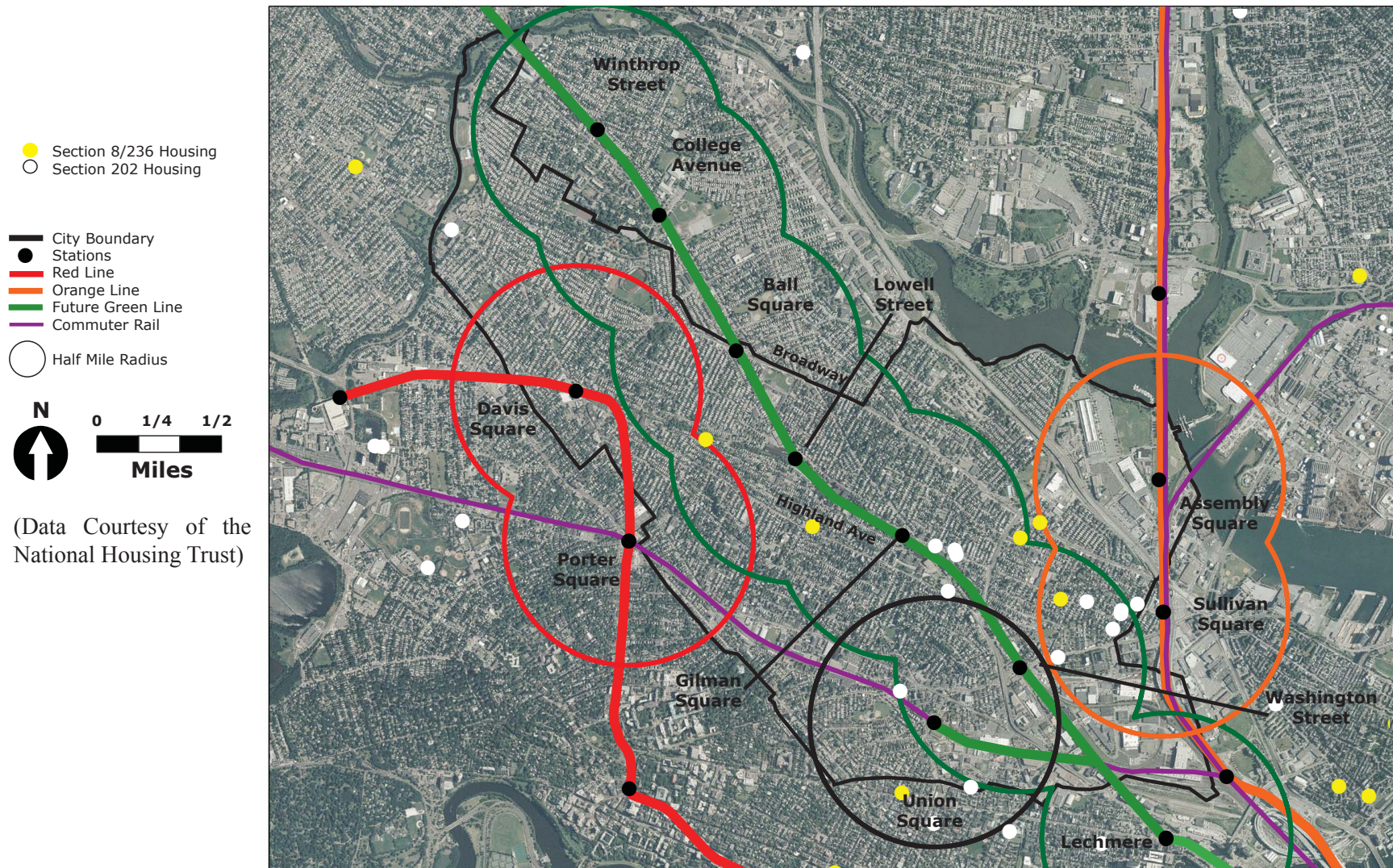
whole, more than two thirds of the subsidized units are within 1/2-mile of an existing or planned transit station. The bulk of these units are clustered in the eastern part of the city, accessible to both the Green Line Extension and the Orange Line stations. The Green Line Extension is accessible to over two-thirds of the total federally subsidized units in the city, while over 450 units have access to the Orange Line stations.

Key Finding: Preserving these units and renewing expiring contracts should be a priority for addressing equitable development.

Existing Subsidized Units Will Need To Be Preserved

Somerville has an existing stock of federally subsidized units through the Section 8 (low-income) and Section 202 (senior low-income) programs. Citywide, there are over 1,100 federally subsidized units in these programs, which have varying terms that can expire and revert to market-rate rents. This subsidized housing stock represents about 3.5% of the total housing units in the city, with the vast majority (1,048 of the 1,113 total subsidized through the Section 8 program. In the city as a

Map 5: Assisted Housing Units

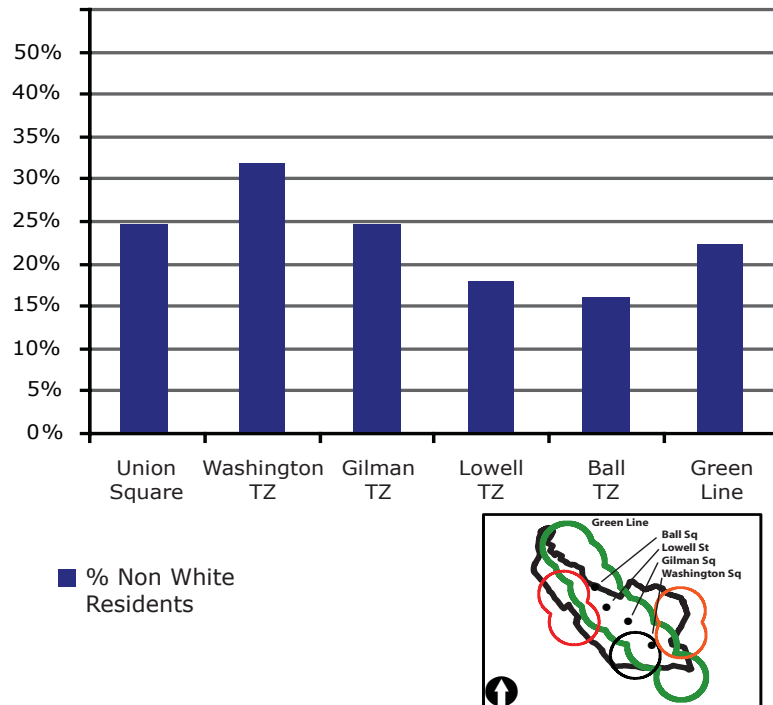


Green Line Extension Equitable TOD Challenges

Green Line Stations in Somerville Become Less Diverse Going West

As the Green Line goes west, it loses diversity around the stations (see Chart 7). The percentage of non-white residents living in station areas of lower income delineates the need for care when approaching redevelopment strategies. Different outreach and community engagement strategies may be necessary for different populations in order to ensure that people do not feel left out of the process. Map 6 shows a more detailed depiction of diversity in the city, highlighting the concentration of non-white residents in the eastern part of the city.

Chart 7: Percentage of Nonwhite Residents on Green Line



Union Square Conditions Approaching Red Line

The Union Square area is closer to the Red Line in land cost but the transit zone population's income is lower than the Somerville average. This might be a cause for concern going forward as the Green Line extension increases the attractiveness of this area as a residential location. However, there is also more underutilized land in this transit zone than in the Red Line station areas (see Table 3). Thirty-one percent of the land is underutilized, with the value of land exceeding the value of buildings, leaving the potential for redevelopment. See Map 7.

Table 3: Underutilized Land by Station Area

	Green Line Extension	Red Line Stations	Orange Line Stations	Union Square	City of Somerville
Acres of underutilized commercial and industrial land	171.8	22.4	127.7	72.2	311.0
% of TZ land underutilized	14%	6%	30%	31%	15%
% of C-I land that is underutilized	69%	68%	75%	72%	68%
Median size of underutilized parcels (acres)	0.15	0.15	0.18	0.14	0.17
Underutilized parcels over 1 acre	37	2	23	12	54
Underutilized parcels over 3 acres	9	0	6	5	15

Key Finding: This suggests that Union Square may need to be a priority for equitable TOD strategies since it is currently experiencing some gentrification pressures and will likely see more activity as transit plans are finalized.

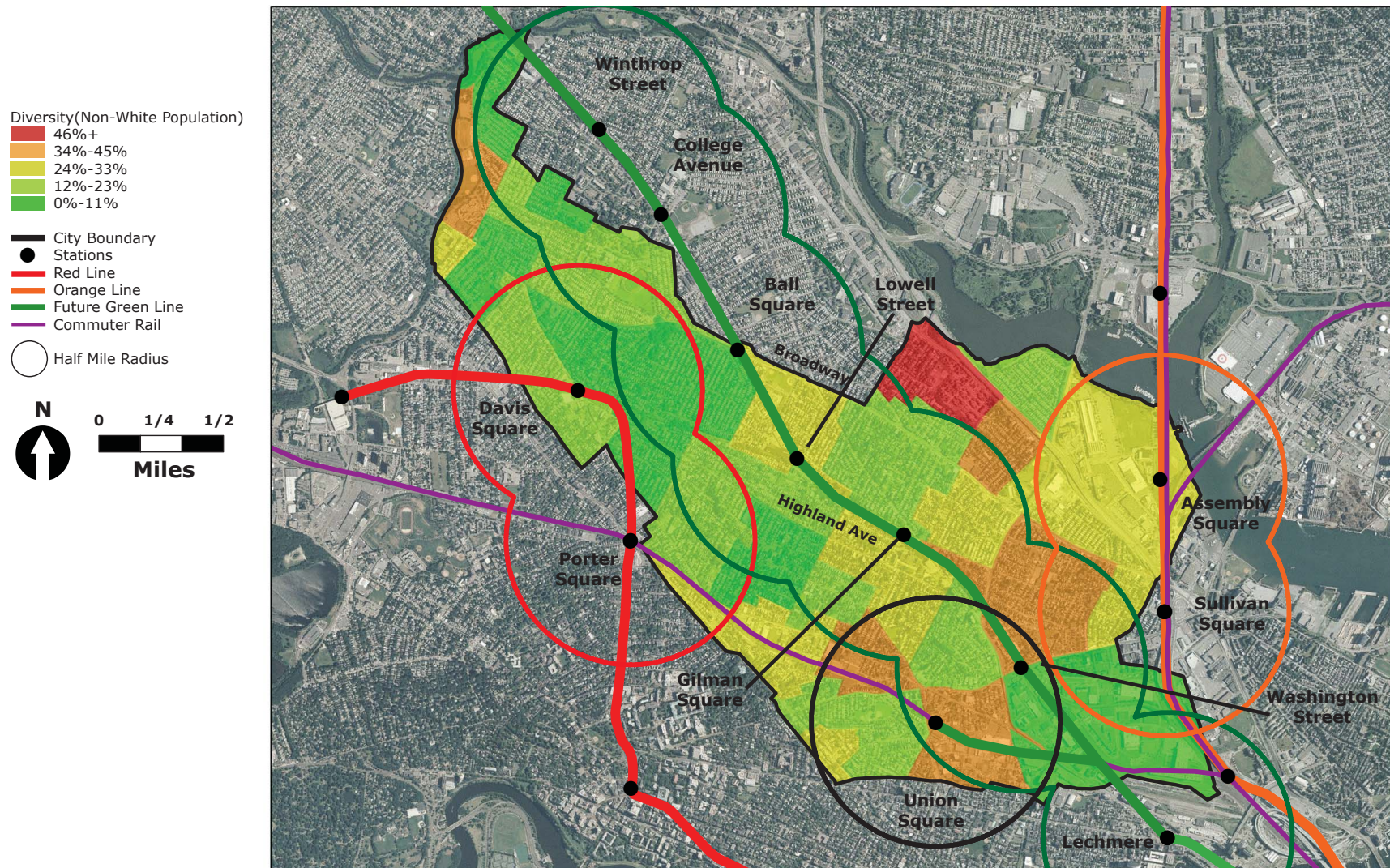
Ball Square and Lowell Street are More Similar to Red Line than Gilman and Washington

The Ball Square station area actually overlaps much of the Red Line transit zone but is also just south of Tufts University. It has similar costs and demographic features to the red line including a high percentage of 2-family housing instead of the usual mix of 1-, 2-, and 3-family housing as well as higher levels of income (See Table 4). These areas have also seen a high level of condominium conversions in the past several years. A City study completed in 2005 showed that there were over 900 condominium conversions in the previous two years. Nearly 25 percent of these were

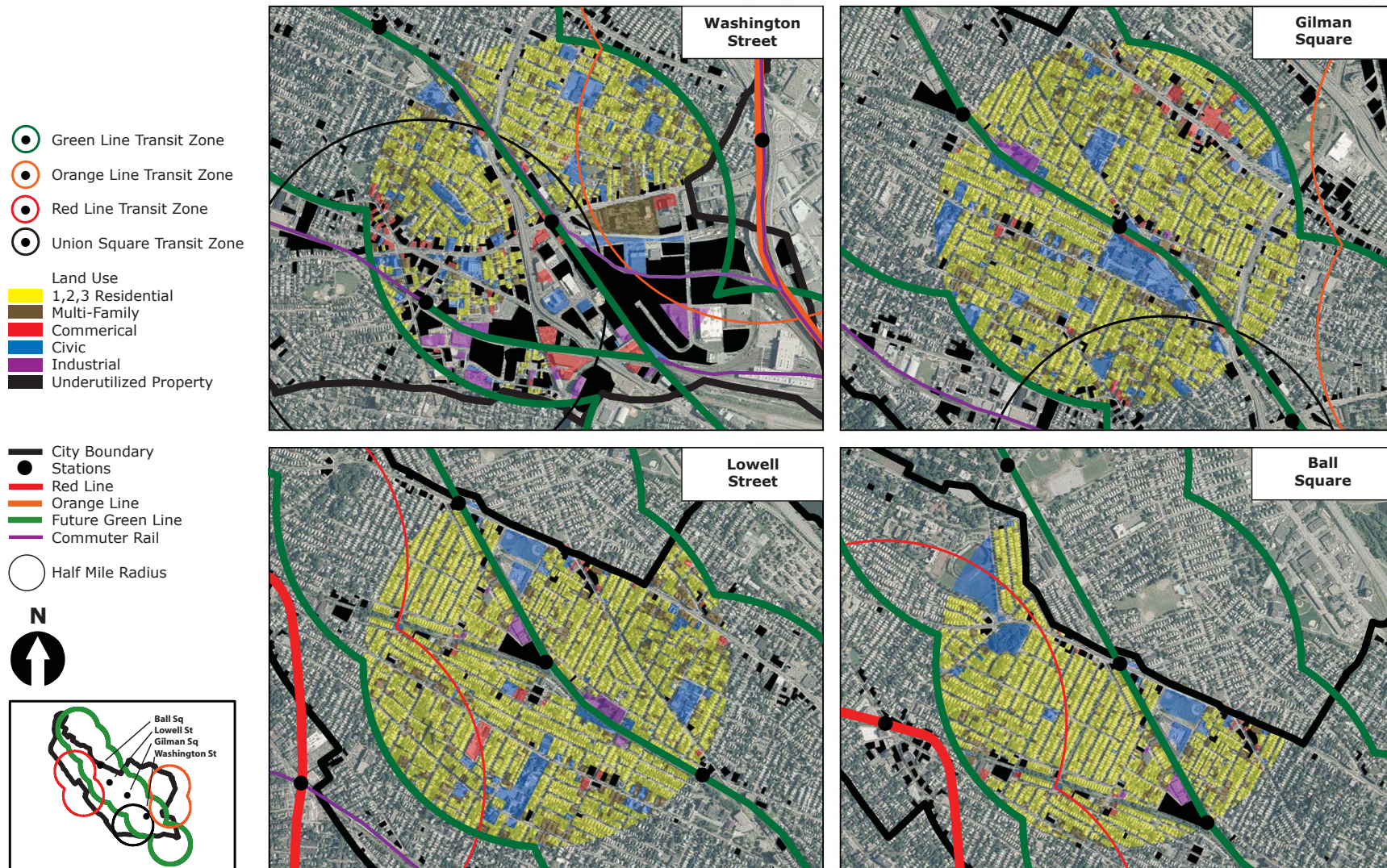
Table 4: Housing Types by Station Area

	Green Line Extension	Wash. St.	Gilman Sq	Lowell St	Ball Sq	Red Line Stations
Total Housing Units (2000)	19,859	5,287	8,276	7,128	4,143	7,793
% of units in 1-family structures	8.1%	7.5%	9.8%	10.6%	7.9%	7.3%
% of units in 2 or 3 family structures	60.6%	45.4%	52.5%	62.8%	77.1%	69.3%
% of units in 4+ family structures	31.3%	47.1%	37.7%	26.7%	15.0%	23.4%

Map 6: Non-White Population by Census Tract



Map 7. Underutilized Land in Specific Station Areas



in Ward 5, which includes much of the Ball Square and Lowell Street station areas. The other stations on the extension, including Washington Street, Union Square, and Gilman Square, are more similar to the Orange Line. See Map 8.

Key Finding: This suggests that strategies used for the Red Line could also be applicable for the Ball Square and Lowell Street stations on the Green Line Extension as well as stations in Medford that have walkable access from parts of Somerville.

Cedar Street is a Dividing Line for Land Values

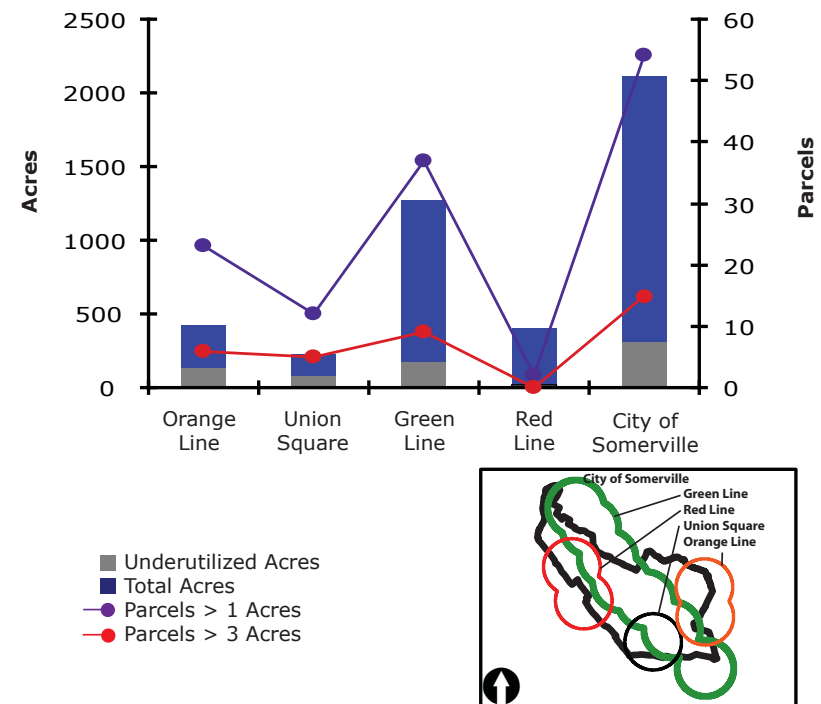
The Green Line Extension stations have different demographic and real estate characteristics, and Cedar Street seems to be a dividing line in terms of both land values and some demographics. This dividing line could be used as a rough estimate of where to begin employing different types of strategies to ensure housing affordability and equity is preserved. East of Cedar Street the cost of land goes down. Higher land values are also noticeable in the southeastern corner of the city, along Beacon Street and Washington Street south of the commuter rail tracks. This area is likely influenced by the proximity to Harvard Square in Cambridge. Access created by the Green Line means these properties closest to Cedar Street are likely to rise faster than those closer to Washington Square. However early attention to these details could possibly stem the tide of displacement. See Map 9.

Redevelopment Potential High Near Eastern Somerville Stations

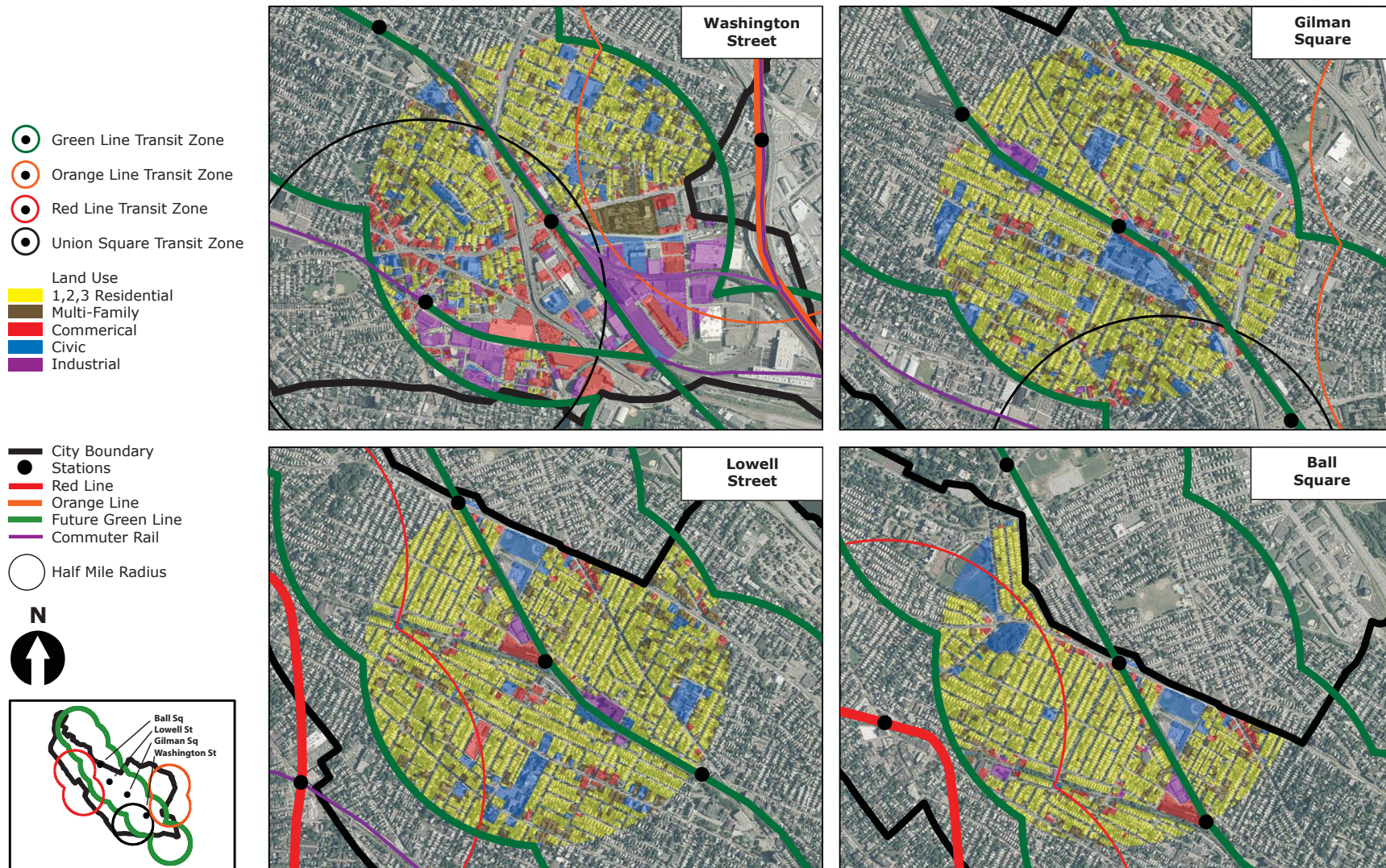
The two southernmost Green Line stations (Union Square and Washington Street) and a new Assembly Square Orange Line Station are areas of high redevelopment potential due to the availability of underutilized commercial and industrial land. This presents an important opportunity for new development to contribute to equitable TOD outcomes. However, this also depends on willingness to redevelop or rezone industrial properties to mixed-use or high density residential. See Table 3 and Chart 8.

Key Finding: Because industrial land represents a resource that cannot be easily recreated, decisions to transform economically viable industrial land in favor of residential development should be taken seriously. Industrial lands often provide an important source of good job opportunities for low- and moderate-income residents, as well as providing important tax base to the city.

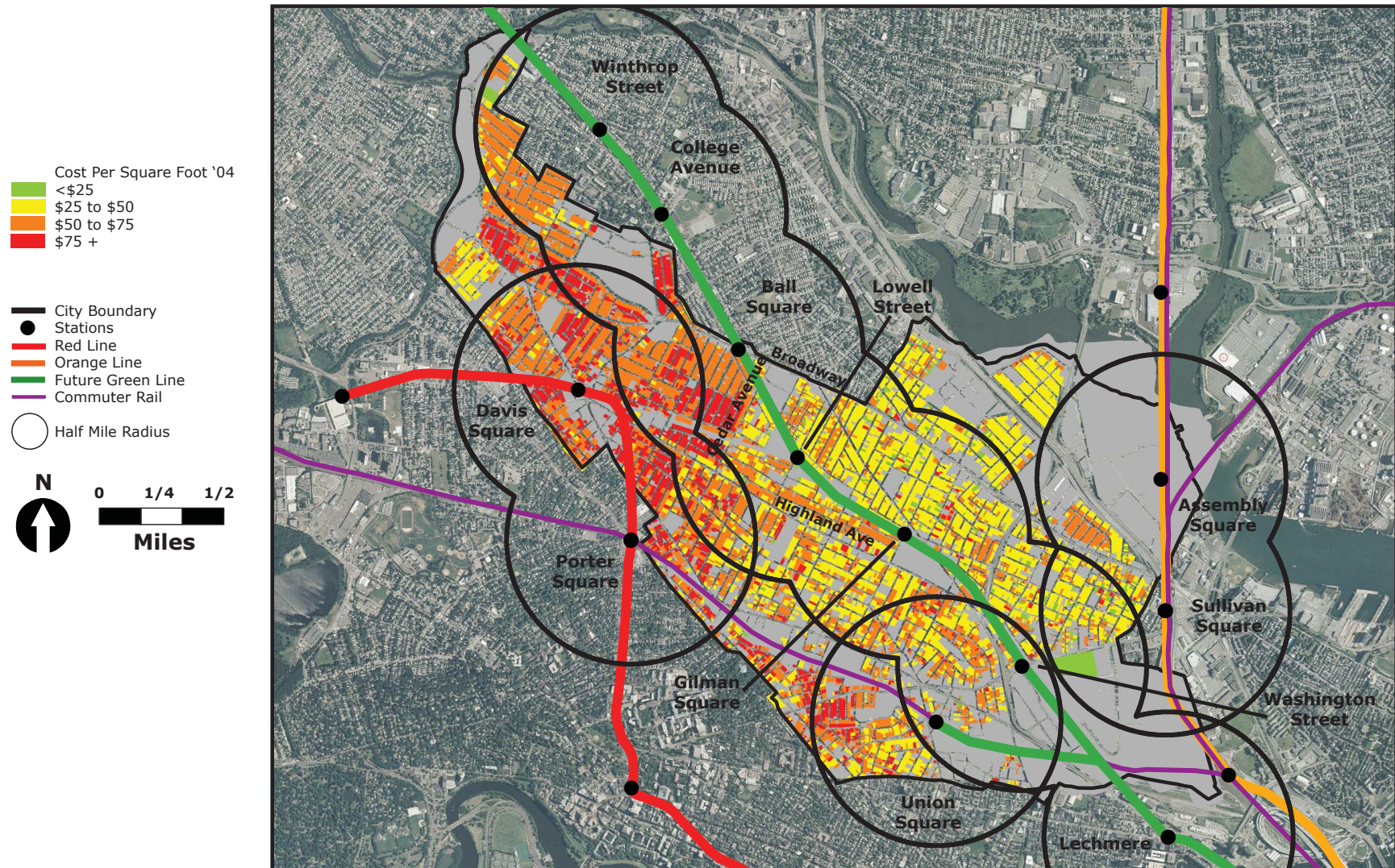
Chart 8: Underutilized Land



Map 8: Green Line Extension Land Use



Map 9: Residential Land Cost Per Square Foot



Current Residents Will Also Benefit From Improved Transit Access

While there is the potential for gentrification and displacement, there are also a great number of resident owners of 2- and 3-family houses in Central Somerville (see Chart 9 and Table 5). Around the Green Line Extension and the Orange Line, over 70 percent of 1-, 2-, and 3-family properties have an owner in residence. These households who have already invested in the neighborhoods will be able to benefit from improved transit access with new stations. Around the Red Line stations, there is a lower rate of owners in residence, suggesting that these properties may have become more valuable as investment properties while the owners live elsewhere. There is also a substantial percentage of the housing throughout the city that is renter-occupied (nearly 70 percent) and the levels of renter-occupied housing is consistent throughout the transit corridors.⁷

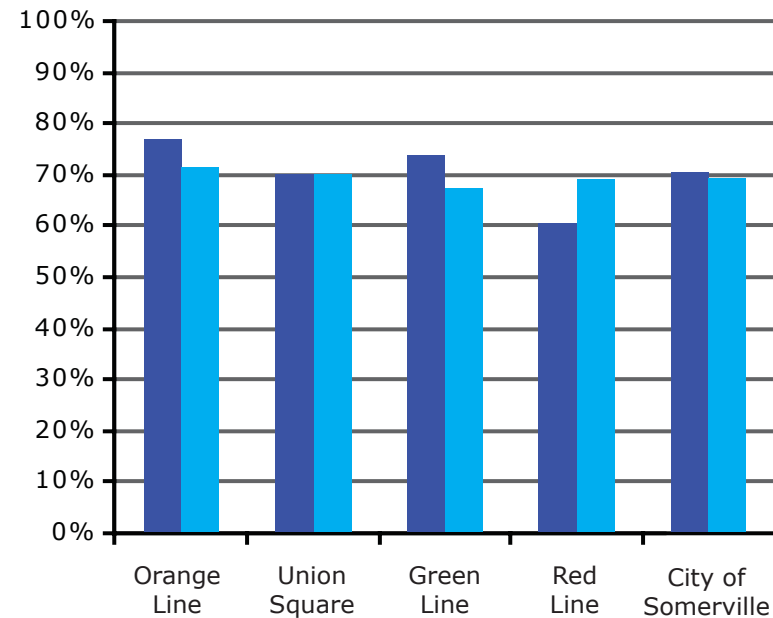
Table 5: Resident/Owner Composition in the Green Line Extension

	Green Line Extension	Wash. St.	Gilman Sq	Lowell St	Ball Sq
% Owners in Residence 1,2,3 Family	73.8%	77.8%	78.4%	76.5%	71.3%
Percent renter households	67.4%	70.4%	68.9%	65.8%	63.3%

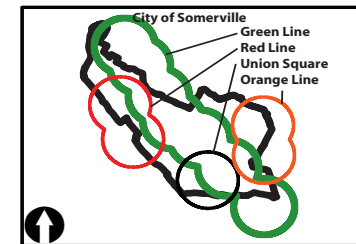
Key Finding: Programs for both owners and renters are necessary to support equitable TOD. For low- and moderate income owners, strategies that encourage them to remain and take advantage of transit access will be important, while at the same time recognizing that small investment owners may need rental revenue to make mortgage payments. For renters, ability to remain in place and eventually buy into the neighborhoods where they are currently living will be important as well.

⁷ Note: The owner-in-residence percentage is not the same as the owner-occupied unit percentage. For example, if there are 20 units in 10 2-family buildings on a street, and seven of those structures have owners-in-residence, there are 70 percent owners-in-residence (7/10), but also 65 percent renter-occupancy (13/20).

Chart 9: Resident Owner/Renter Composition



■ Owners in Residence
■ Renter Households



Equitable TOD Opportunities & Strategies

Transit Zones Will Require Individual Solutions

The station areas and transit lines in the city are at different stages of their growth and development. The Red Line stations appear to be the highest cost and most gentrified while the Orange Line stations appear to be the lowest income. The Green Line Extension stations are at a stage where they could change radically with the introduction of new transit access. The Union Square station is closest to the conditions of the Red Line and might require different and stronger intervention to capture the value of increased investment while properties along the Green Line extension could be helped by a proactive approach to preserve existing affordability before prices and displacement pressures rise. While this change may not happen until the transit implementation is farther along, steps in the interim can be taken to create the best opportunities around those stations.

There are a set of equitable development strategies, many of which are already being deployed in Somerville that can be focused around the opportunity for equitable transit-oriented development. Due to the different types of opportunities within the city, there are some places where more proactive, targeted investments will be appropriate, and others where a more opportunistic approach is needed. Following an introduction of the strategies (both existing and potential) there is a discussion of the types of opportunities in the city, and how the strategies and opportunities can be matched up for the greatest impact.

Equitable Development Strategies

Strategies for equitable transit-oriented development fall into three broad categories: (1) strategies for leveraging new market-rate development, (2) strategies for preserving existing affordability, and (3) strategies for stabilizing neighborhoods institutions and retail corridors.

1. Leverage new market-rate development to create long-term affordability

Affordable units can be included as part of new market rate development. These strategies create new affordable housing opportunities in rapidly developing neighborhoods. This strategy expands the overall supply of housing, but could lead to some displacement of households from existing units during the development process.

- **Housing Trust Funds** are a dedicated source of funding for affordable housing that can be used in a variety of ways to prevent displacement. One use is to invest incentive funding in private development projects in return for the provision of affordable units. Housing Trust Funds can also be used to acquire land for future development or to finance the construction of housing in fully subsidized projects. Somerville has an existing Housing Trust Fund that has been successful in developing affordable housing in the city. The fund is largely funded through a linkage fee for commercial developments over 30,000 square feet. \$3.91 per square foot over this threshold goes into the Trust Fund. The Trust fund is not currently targeted toward areas with close proximity to transit. Housing Trust Funds can also be used to leverage additional community benefits, such as construction labor and hiring practices, open space improvements, and more from private development projects. These benefits are most successful when planned and calibrated ahead of time, rather than determined on a case-by-case basis.
- **Inclusionary Zoning Requirements** set aside a percentage of units in market-rate development as affordable, often in combination with density bonuses, and are most effective when focused on transit zones. The City of Somerville has an existing

*Case Study:
Charlotte's Housing Trust Fund Supports TOD*

Charlotte, North Carolina's Affordable Housing Trust Fund provides public funding to private developments in exchange for affordable units using a competitive bid process. The fund was started in 2001, when the City Council set aside \$10 million for the fund. In 2002 and 2004, Charlotte voters approved another \$20 million and \$15 million respectively.

The fund can be applied flexibly to land acquisition costs, as well as a variety of housing types, and can be applied as a loan or a grant, depending on the project circumstances and needs. From its inception through the end of 2006, the fund led to the construction or rehabilitation of over 2,800 units, of which over 1,600 (57 percent) were for households earning below 30% of Area Median Income.

The 2,800 units include 223 units of new affordable ownership housing, over 900 new multi-family rental units, nearly 600 rehabilitated multi-family rental units, and over 1,100 special needs units.

The average subsidy per unit from the Trust Fund has been just less than \$14,000 (other affordable housing funds are used in coordination with the Trust Fund).

12.5% inclusionary housing requirement. Affordable units must be provided in the same mix as the project as a whole, with 50% targeted to incomes of 80% AMI or below (roughly similar to the citywide median) and 50% targeted to incomes of 80%-110% of AMI. The program has an allowance for an in lieu fee, but does not specify where and how this fee should be used. The program could be targeted to transit zones or have higher requirements in areas vulnerable to displacement.

- **Development Agreements** between public agencies and private developers are an effective method for leveraging affordable housing and other amenities from large development projects. Portland, Oregon has had success with this strategy in the Pearl District, where new development has included 25% affordable units. New projects built in this area have been required to match the current city income range, creating mixed-income development and preserving affordable housing near transit. This strategy might be particularly useful in locations where one or two land owners are seeking to transform an underutilized district, such as around Assembly Square. Development Agreements are another opportunity to secure community benefits from developers for issues including public open space improvements, green building, and labor and hiring practices. Again, these benefits are most successful when planned at a wide scale and in advance of development, so both developers and community stakeholders can be clear in the outcomes.
- **Land Acquisition and Assembly Funds** can be used to secure land in neighborhoods with rapidly escalating prices to reduce the cost of providing affordable housing. These funds can also be created using City funds, and can be established using a range of models, from grants to revolving loan funds.
- **A Public Land Disposition Strategy** can be used to achieve affordable housing as a part of public land disposition around transit. There are many different public entities that control land in station areas, including the City of Somerville. Working with these agencies can identify affordable housing opportunities and devise a strategy that results in

affordable housing production from the disposition of public lands. These public resources can often be used to create equitable development opportunities in neighborhoods that are largely built out already.

- **Auxiliary Units and Infill Development Guidance** can help to sensitively add additional housing in mostly built-out neighborhoods with limited development opportunities. These types of units, including granny flats, accessory dwelling units, and carriage houses, as well as small-scale single- and multi-family infill projects, can add to the housing diversity in a neighborhood and help limit displacement due to income or age. While the potential impact of this type of program on larger displacement trends is limited, the incremental benefit can help address neighborhood change at the small scale.

2. Preserve existing affordability by stabilizing costs

Displacement often occurs when low rent housing becomes a target for redevelopment or gentrification. Displacement can also be caused by rising costs of homeownership that cause existing residents to sell property and move elsewhere. These strategies are not aimed at expanding the supply of housing, but rather at allowing existing residents to remain in neighborhoods as values and prices rise.

- **Community Land Trusts** and other alternative ownership models can preserve existing affordability by spreading the costs and gains. Dudley Neighbors, Inc. in Boston, has successfully developed housing in partnership with community development corporations (CDCs) for 20 years. This type of model has also been utilized in other regions to create long-term affordability through both preservation and new construction.

Case Study:

Dudley Neighbors, Inc., Boston, Massachusetts

Dudley Neighbors, Inc., (DNI) acts as a land trust, purchasing land and leasing to private and non-profit organizations for low rates and 99-year terms. The organization has also been granted eminent domain power through the state to acquire vacant or abandoned properties. DNI often assembles vacant land together with City-owned land to increase the development potential.

Since its inception in 1988, DNI has contributed to the construction of over 155 units of housing, community space for meetings and other events, non-profit office space for community organizations, and several open space projects.

Housing projects have ranged from as small as 10 units to as large as a 50-unit mixed-use building, and have included both ownership and rental units. DNI's ability to partner with other local development organizations has helped reinforce community vision throughout the development process.

- **Housing Acquisition and Rehab Funds** fund the acquisition and rehabilitation of existing affordable housing units. A portion of Charlotte's Housing Trust Fund, described above, is used to acquire affordable units as they come on the market. Often, older housing stock (pre-WWII) in transit zones is a prime target for gentrification due to the cost of maintenance and upgrades. Targeting this type of funding towards older units and current residents can help preserve affordable housing, especially in the existing Section 8 and Section 202 housing units described above. Both the City and SCC have worked in recent years to prevent Section 8 and Section 202 contracts from expiring, but there are still many vulnerable properties throughout the city.

- **Homeownership Programs** are effective in helping low- and moderate-income households enter the homeownership market. These programs can be effective in addressing displacement when linked to transit areas. The City of Somerville currently offers a range of homeownership programs, including first-time homebuyer assistance. SCC currently supports the City's efforts by making these programs available in languages other than English. SCC, as the City's CHDO, constructs home ownership units and engages in a targeted marketing and lottery process to sell these homes to low and moderate incomer residents.
- **Tenant Purchase Opportunities** can slow the displacement of existing households by helping tenants purchase their units. Some cities, including Washington DC, have enacted laws allowing tenants in both single- and multi-family units the first right of refusal when a landlord decides to sell, with a limited time period to secure financing. These laws can help renters transition to owners, and can limit displacement over time.

3. Stabilize neighborhoods, institutions and neighborhood-serving retail

Stabilizing residential and non-residential neighborhood resources, including community centers, non-profit service providers, local-serving retail, and faith-based centers, can help slow residential displacement, or, if population shifts occur, can help preserve important community bonds. Strategies to stabilize these resources include community development loan funds and other resources to address non-residential displacement issues. Stabilizing residential resources includes strategies for sensitive infill and the addition of second units in existing single-family neighborhoods.

- **Commercial Stabilization and Community Development Funds** encompass a range of strategies intended to reinforce local business and entrepreneurship to help build wealth, address gentrification and business retention, and other strategic goals. Strategies include façade improvement programs, streetscape programs, and technical business assistance. These programs can be administered by existing organizations or special-purpose Community Development Funds. Somerville already has many of these programs, and, where not already, these can be targeted toward station areas to maximize their long-term impact.
- **Community Hubs** such as day care facilities, recreation centers, job training centers, and other uses should be located near transit to integrate transit and the services into the daily life of the community. The Bethel New Life Center in Chicago, Illinois combines a day care center, local-serving retail and other uses with improved access to the Garfield Park El Station. The Northern California Community Loan Fund has created a dedicated loan fund and technical assistance program for creating community hubs that include a range of community uses and programs. In Denver, there have been efforts, led by the Piton Foundation, to utilize schools as centers for neighborhood change and organizing. In Somerville, utilizing the new transit investments as focal points for these types of community hubs can help catalyze some of the neighborhood improvements that will help make transit more accessible to all residents.

Case Study: Seattle's Rainier Valley Community Development Fund

In Seattle, the Rainier Valley Community Development Fund was initiated in 2002 to serve three purposes: (1) provide mitigation grants to businesses impacted by light rail construction, (2) provide job training to local residents, and (3) to create a revolving loan fund for business development, site acquisition, and other development uses.

The fund was started with approximately \$30 million in funding from the City of Seattle and Sound Transit to mitigate the impacts of light rail construction on a low-income corridor with the potential for commercial displacement.

Since its inception, the fund has disbursed nearly \$9 million in grants to local businesses, which have seen almost no closures during light rail construction. In addition, the fund has placed over 100 residents have been placed in construction-related jobs, and the fund has made an initial \$1 million site acquisition loan to a local non-profit developer.

- **Transit Linkage Programs** such as free passes for seniors or low-income households are a tool to improve affordability for transit-rich areas. London, England is experimenting with this type of program. A program linked to households within Station Areas could reduce the need for auto ownership among low-income households. Transit passes can also be linked to new market-rate units, as is being tried in Seattle, Washington, in order to integrate the transit network with new development, or with major employment/activity centers, such as schools or large employers.

Equitable Development Opportunities

The analysis and findings in this report identify the need for various strategies for equitable development that will be different in different parts of the city. The findings suggest the following five different types of equitable development opportunities in transit zones throughout the city:

- **Market Transition Areas:** Areas where the real estate market may spur redevelopment that can be leveraged for equitable TOD. Strategies in these areas will primarily focus on new construction.
- **Neighborhood Reinvestment Areas⁸:** Areas where some neighborhood-scale investments (e.g. transit access, safety and lighting improvements, etc) could help improve transit accessibility, but should be coupled with affordable housing preservation strategies. Strategies in these areas will include a mix of new development and preservation of existing affordability, and may present the greatest opportunity for a mix of affordable units in new and existing properties.
- **Strategic Investment Areas:** Areas where there is not a lot of market opportunity due to constrained land area, but targeted funding for one or two equitable TOD could have a long-term impact. Strategies in these areas will include a mix of new construction and preservation of existing affordability, but affordable housing preservation will likely be more costly per unit than in other parts of the city.

⁸ Neighborhood Reinvestment Areas as defined here align closely with the City's designated Neighborhood Reinvestment Areas, but there may be some differences between these areas.

- **Proactive Preservation Areas:** Areas with a high short-term potential for displacement and a lack of new development opportunities that should be the target for proactive efforts to preserve and expand existing affordable housing opportunities. Strategies in these areas will focus on the preservation of existing affordability.
- **Opportunistic Preservation Areas:** Areas where the market is already pretty strong and expensive, but there may be piecemeal opportunities for affordable housing preservation to maintain the existing mix of incomes. Strategies in these areas are likely to focus on preservation of existing affordability due to the lack of opportunity for new construction in most locations.

These three broad strategies will have different applications to the opportunities previously outlined. Table 6 outlines the places ways each strategy can be prioritized given opportunities in Somerville.

We have developed a draft opportunities map to identify where these strategies would be most applicable (see Map 10). At this stage, this map is intended to be illustrative of how the opportunities are arrayed geographically within the city. Working with the City, neighborhood residents, and other stakeholders to refine the geographic understanding of the city and how equitable development strategies can be aligned with land use and transportation planning efforts will be essential to the ultimate success of an equitable transit-oriented development strategy for Somerville.

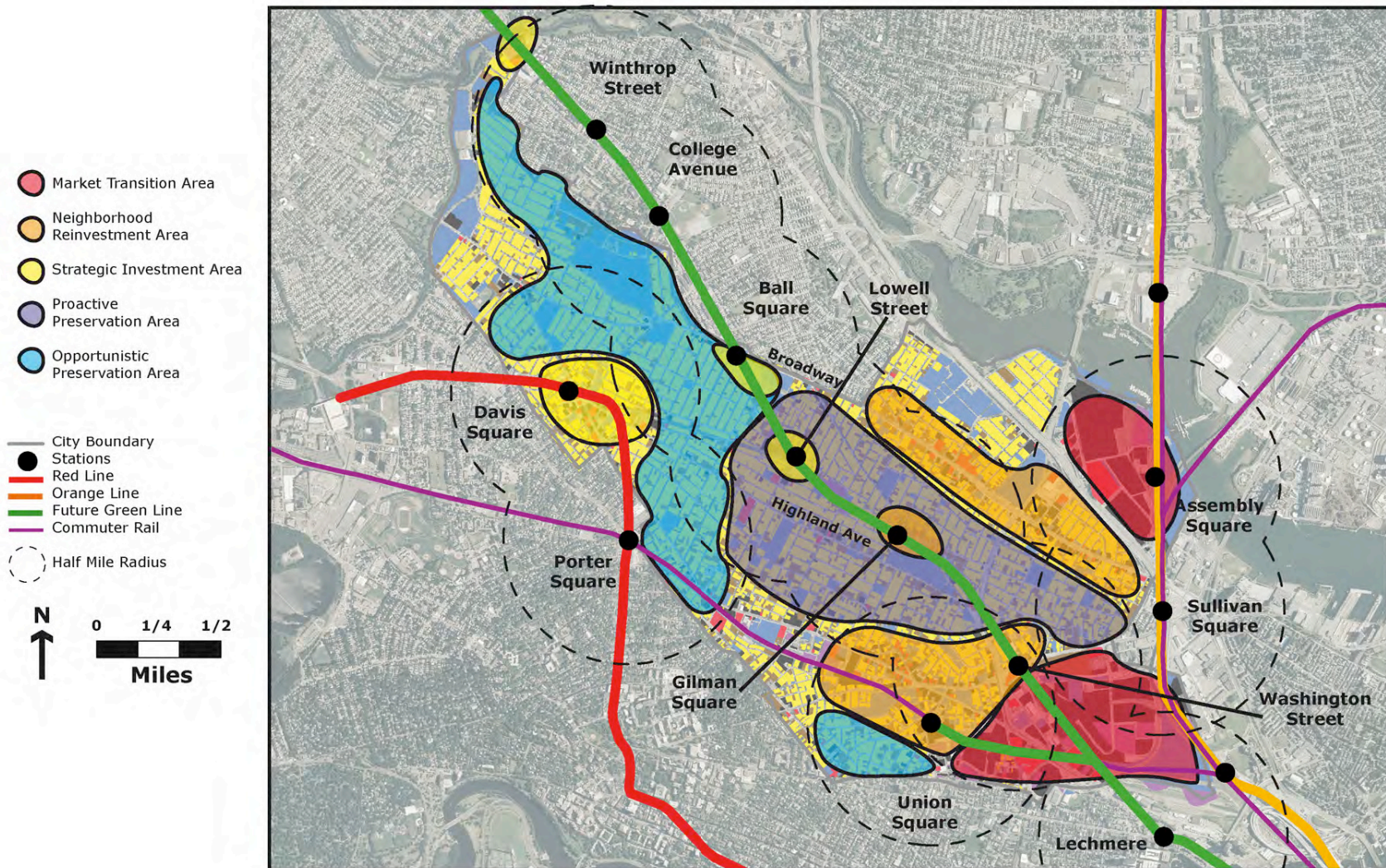
A Mix of Data and Observation Necessary

This report has focused on data available from the US Census and the City's tax assessor's database. These sources should be augmented by site observation and documentation to confirm the conclusions offered here. At the same time, continued use of available data should help guide the response of both the City and SCC to equitable TOD needs and opportunities. The full set of data indicators used to generate the findings and charts in this report is included at the end of the document.

Table 6: Equitable Development Opportunities and Strategies

Equitable Development Strategy	Market Transition Area	Neighborhood Reinvestment Area	Strategic Investment Area	Proactive Preservation Area	Opportunistic Preservation Area
Leverage New Development					
Housing Trust Funds	High	High	High	Low	Low
Inclusionary Zoning	High	High	Low	Low	Low
Development Agreements	High	Low	High	Low	Low
Auxiliary Units and Infill Guidance	Low	High	High	High	Low
Land Acquisition and Assembly	High	High	High	Low	Low
Public Land Disposition Strategy	Low	High	High	Low	Low
Preserve Existing Affordability					
Community Land Trusts	Low	High	Low	High	High
Housing Acquisition and Rehab Funds	Low	High	Low	High	High
Homeownership Programs	High	High	High	High	High
Tenant Purchase Opportunities	Low	High	Low	High	High
Stabilize Neighborhoods and Institutions					
Community Stabilization Funds	Low	High	High	High	Low
Community Hubs	Low	High	High	High	Low
Transit Linkage Program	High	High	High	High	High

Map 10: Somerville Equitable Development Opportunity Areas



Next Steps in Promoting Equitable TOD in Somerville

This document has outlined some of the challenges and opportunities for equitable TOD in the city. In moving forward, there are several next steps that will continue to advance this important work:

- SCC should continue to organize residents and seek development opportunities for new affordable housing in proximity to existing and planned transit stations.
- The City should convene a land use and station access planning process around new transit stations while also seeking to focus existing City programs on the issues and opportunities identified here.
- As EOT continues to move forward with transit planning, the final decisions on the eventual Green Line investments should be coordinated with the findings, opportunities, and strategies outlined in this report.
- Both SCC and the City should augment this report with additional data and observations to build the understanding of equitable TOD strategies in the city. Part of this work can include the quantification of market rate and mixed-income development expected under different scenarios to test the potential impact of the various strategies outlined here.

Developing mixed-income transit-oriented development is a process, and these steps are only the beginning. However, the opportunity to leverage the coming transit investments in the city to maximize the potential impact is an opportunity that should not be missed.

Appendix: Full Data Tables

Sources: City = City of Somerville 2004 Assessor's Database

CTOD = Center for Transit-Oriented Development National TOD Database/2000 US Census

NHT = National Housing Trust Federally Subsidized Housing Database

Indicators of Change and Vulnerability	Green Line Extension	Wash. St.	Gilman Sq	Lowell St	Ball Sq	Red Line Stations	Orange Line Stations	Union Square	All Transit Zones	City of Somerville	Boston Region	Data Source
<i>Real Estate Market Indicators</i>												
Percent housing units built before 1939	97.0%					92.0%	95.0%	97.0%	97.0%	97.0%	34.4%	City
Percent housing units Major renovation After 19	5.8%					8.0%	8.6%	7.0%	6.5%	6.7%	NA	City
Percent housing units Major renovation After 19	14.9%					17.2%	19.2%	17.2%	15.7%	16.0%	NA	City
Property values (Land) (Avg)												City
Cost Per Square Foot Residential	\$55.93	\$48.08	\$48.06	\$54.21	\$63.05	\$73.20	\$45.54	\$60.41	\$59.65	\$59.18	NA	
Cost Per Square Foot Commercial	\$44.31	\$45.15	\$46.96	\$41.38	\$45.01	\$65.28	\$47.22	\$51.50	\$49.33	\$49.00	NA	
Cost Per Square Foot Industrial	\$21.57	\$21.27	\$23.66	\$14.70	\$19.33	\$22.80	\$26.41	\$23.53	\$23.90	\$23.60	NA	
Residential Vacancy Rate	2.8%	3.0%	2.7%	2.8%	2.6%	3.4%	3.1%	3.0%	3.0%	2.8%	4.2%	City
Section 8 & 202 Unit Totals	693	543	271	17	8	0	455	24	758	1,113	36,702	CTOD/NHT
Section 8	671	533	232	0	0	0	445	24	701	1048		
Section 202	22	10	39	17	8	0	10	0	57	65		
% Owners in Residence All Residential	66.8%	67.3%	69.9%	69.3%	67.0%	60.5%	66.2%	60.9%	64.5%	63.7%	NA	City
% Owners in Residence 1,2,3 Family	73.8%	77.8%	78.4%	76.5%	71.3%	66.6%	76.8%	69.8%		70.2%	NA	City
<i>Demographic Indicators</i>												
Population (2000)	48,451	12,881	19,488	16,221	9,968	17,292	6,017	11,223	64,717	77,478	5,819,101	CTOD
Total Housing Units (2000)	19,859	5,287	8,276	7,128	4,143	7,793	2,480	4,846	27,223	32,477	2,318,421	CTOD
Median income	\$45,971	\$35,169	\$42,866	\$50,811	\$53,564	\$55,844	\$37,797	\$40,961	\$47,499	\$46,315	\$52,792	CTOD
Per Capita Income	\$22,949	\$18,679	\$23,317	\$26,613	\$26,024	\$28,530	\$17,258	\$22,497	\$23,992	\$23,628	\$26,856	CTOD
Percent below 50% AMI (\$53,000)	26.1%	35.7%	27.4%	21.5%	19.0%	16.8%	35.3%	29.9%	24.3%	25.2%	22.7%	CTOD
Percent renter households	67.4%	70.4%	68.9%	65.8%	63.3%	69.1%	71.3%	70.0%	68.2%	69.3%	38.0%	CTOD
Percent non-white	22.4%	32.1%	24.8%	17.9%	16.0%	14.0%	32.0%	25.0%	21.6%	23.0%	15.0%	CTOD
<i>Transportation Characteristics</i>												
Journey to Work												CTOD
Automobile	59%	61%	63%	60%	53%	44%	65%	49%	55%	56%	83%	
(Drove Alone)	47%	45%	49%	51%	46%	40%	48%	38%	45%	45%	74%	
Transit	27%	26%	25%	28%	33%	40%	26%	25%	30%	29%	9%	
Bike	2%	3%	2%	3%	2%	3%	1%	7%	3%	3%	0%	
Walk	9%	8%	7%	6%	8%	10%	4%	14%	9%	9%	4%	
Work at Home	2%	1%	2%	2%	3%	3%	2%	3%	2%	2%	3%	

Indicators of Change and Vulnerability	Green Line Extension	Wash. St.	Gilman Sq	Lowell St	Ball Sq	Red Line Stations	Orange Line Stations	Union Square	All Transit Zones	City of Somerville	Boston Region	Data Source
<i>Physical Characteristics</i>												
Acres of underutilized commercial and industrial	171.8	96.4	13.9	11.3	11.9	22.4	127.7	72.2	295.0	311.0	NA	City
% of TZ land underutilized	14%	23%	3%	3%	5%	6%	30%	31%	18%	15%	NA	City
% of C-I land that is underutilized	69%	74%	50%	13%	74%	68%	75%	72%	71%	68%	NA	City
Median size of underutilized parcels (acres)	0.15	0.14	0.11	0.11	0.10	0.15	0.18	0.14	0.16	0.17	NA	City
Underutilized parcels over 1 acre	37	21	0	1	2	2	23	12	51	54	NA	City
Underutilized parcels over 3 acres	9	7	0	1	1	0	6	5	15	15	NA	City
Median commercial parcel size (Acres)	0.11	0.13	0.11	0.11	0.09	0.31	0.12	0.13	0.15	0.13	NA	City
Median Commercial FAR	0.89	0.76	1.08	0.92	1.1	1.48	0.88	0.85	1.01	0.99	NA	City
Median Industrial FAR	0.61	0.61	0.7	1.39	0.77	0.77	0.48	0.61	0.68	0.68	NA	City
Commercial Properties Smaller than City Median	205	93	72	50	54	76	49	104	325	379	NA	City
Total Commercial Properties	395	194	124	81	81	141	90	209	619	704	NA	City
% Commercial Properties Smaller than City Median	51.9%	47.9%	58.1%	61.7%	66.7%	53.9%	54.4%	49.8%	52.5%	53.8%	NA	City
Land use mix												City
1-, 2-, 3-Unit Residential	46.3%	27.5%	57.5%	54.2%	59.3%	61.4%	13.3%	48.4%	48.0%	42.8%	NA	
Multi-Family (Apts, Condos) Residential	10.2%	10.8%	13.4%	10.3%	7.6%	10.6%	6.1%	18.0%	10.3%	9.1%	NA	
Commercial	8.1%	14.5%	5.6%	3.8%	5.2%	6.2%	17.5%	24.1%	12.1%	10.1%	NA	
Civic	16.1%	12.2%	15.1%	7.2%	16.6%	14.4%	24.2%	13.1%	6.0%	16.1%	NA	
Industrial	7.4%	16.3%	1.2%	16.8%	1.4%	0.8%	13.5%	19.0%	7.4%	6.1%	NA	
Not Labeled/Misc	11.9%	18.5%	7.3%	7.7%	9.9%	6.7%	25.2%	25.8%	16.2%	15.9%	NA	
Total Acres	1272	423	414	429	243	405	425	231	1641	2113	NA	City
1-, 2-, and 3-Unit Land Use Mix												City
Single Family	10.1%	6.7%	15.9%	14.6%	11.0%	11.7%	2.5%	9.4%	10.2%	8.9%	NA	
Two Family	25.1%	13.0%	27.5%	27.2%	34.6%	34.0%	6.6%	23.0%	25.7%	22.9%	NA	
Three Family	11.2%	7.9%	14.1%	12.3%	13.8%	15.7%	4.2%	16.0%	12.2%	10.9%	NA	
Multi Family Land Use Mix												City
4 - 7 Unit Multi-Family	3.7%	4.1%	6.6%	3.8%	1.8%	3.0%	1.7%	6.7%	3.8%	3.3%	NA	
8 + Unit Multi-Family	3.0%	3.9%	3.3%	2.8%	1.4%	2.5%	3.0%	6.9%	2.7%	2.2%	NA	
Units by Residential Structure Type												City
Single-Family	8.1%	7.5%	9.8%	10.6%	7.9%	7.3%	6.1%	6.4%	7.7%	7.4%	NA	
Two- and Three-Family	60.6%	45.4%	52.5%	62.8%	77.1%	69.3%	51.4%	54.7%	61.4%	59.1%	NA	
Multi-Family	31.3%	47.1%	37.7%	26.7%	15.0%	23.4%	42.5%	38.9%	30.8%	33.5%	NA	
Residential Acreage	719	162	294	276	163	292	83	153	957	1096	NA	City
Residential density (Units/Residential Acre)	28	33	28	26	25	27	30	32	28	30	NA	City/CTOD
Avg Household Size	2.39	2.49	2.39	2.30	2.37	2.20	2.50	2.38	2.36	2.38	2.54	CTOD
Single Person Household	32%	35%	34%	31%	27%	31%	36%	33%	32%	31%	27%	
Two People Household	33%	26%	31%	36%	38%	38%	25%	31%	33%	33%	31%	
Three People Household	16%	15%	15%	16%	18%	17%	15%	17%	16%	17%	17%	
Four + People Household	20%	24%	20%	17%	18%	13%	24%	19%	19%	19%	25%	